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INSIDE DOPE

by GEORGE F. TAUBENECK

Story of the Week
No Private Fight
The Night Watch
Nuts to 'The Night Watch'
Give and You'll Get

Story of the Week

Several years ago a neighbor of ours, a widower with four small children, married a grass widow who brought two lusty boys into the household. In time, this new union was blessed with three more offspring.

As you can imagine, there's never a dull moment in that domestic establishment.

One day last week, as our neighbor tells it, the early morning downstairs noise was much louder and more violent than usual. In carpet slippers and bathrobe, the sire of the house pattered down to investigate.

Within a few moments he was back upstairs, spreading out his hands in a sign of mute helplessness.

"What's going on?" yawned his sleepy mate.

"*Your* children and *my* children," retorted the frustrated husband, "are kicking the hell out of *our* children."

No Private Fight

In recent issues of *Printers' Ink,* an illustrious magazine which serves advertising men, a highly diverting argument has been waged. This debate has to do with the merits of working hard, long, and late.

Following are the "affirmative" and the "negative" sides of this debate. And after that, "Dope" adds his two-cents-worth in rebuttal (like the Irishman who asked: "Is this a private fight, or can anyone join in the fun?")

The Night Watch

By A. D. Converse, Jr., Gray & Rogers, Philadelphia

"It's a story that can be repeated in every city in the country, maybe in every office building: one guy working late, working at something more interesting than anything else in the world. And raising himself little by little because he is willing to work overtime.

"Success-through-hard-work is old stuff, but, like pay-day, it's still good. How can it be otherwise? If two men have equal talent, and one of them consistently works harder, he's bound to move faster.

"Claude Hopkins set the pattern years ago, working 80 hours a week while his confreres worked 40. After 35 years, he began calling it 'my 70 years in advertising.'

"In Pittsburgh I often saw Oliver Keller, a young man but editor of the *Post-Gazette,* working a 12-hour day and a seven-day week—not just occasionally, but regularly.

"In Chicago, Herbert P. Zimmermann is president of The Lakeside Press (R. R. Donnelley & Sons) one of the greatest printing organizations in the world. He is one of the highest salaried men in Chicago, way past the $100,000 mark. And the legend survives how—as a young man—he lived a second life in the plant at nights, picking up the myriad facts that he hadn't time to learn in his regular daytime job.

"Ken Akers in Cleveland, now head of The Griswold-Eshleman Co., and author of those highly Starched advertisements for Goodrich and Warner & Swasey, never tires of saying: 'The office is the place for detail. Creative work has to be done at home—outside of regular business hours.'

"Jerry Gray, here at Gray & Rogers, is another who subscribes to

(Continued on Page 14, Column 3)

Licensing Bill Rouses Dealers In Nashville

NASHVILLE, Tenn.—Vigorous opposition to a proposed city ordinance that would require electrical licenses for persons and firms who install, alter, maintain, or repair electrical appliances has burst forth from a group of more than 50 electrical appliance dealers here.

The bill, which received its second reading at the city council session last Tuesday, is pictured by the organized appliance dealers as a monopoly bill designed "to put all electrical business in Nashville in the hands or seven or eight union contractors."

Ernest Edenfield, secretary-treasurer of Edenfield Electric Co., Inc., and a member of the committee favoring the bill, declared that "the only purpose of the bill is to assure good, safe, electrical work in Nashville.

"We are only looking at this from the standpoint of a better wired, safer city," he added, charging that many electrical appliances have been and are wired so carelessly that they are a positive danger to life and property.

The bill, as written at the time of the second reading, called for the creation of a board of electrical examiners, consisting of two electrical contractors, two journeymen electricians, and one representative

(Concluded on Page 4, Column 1)

Instalment Standards After Nov. 1 Urged

CHICAGO—Adoption of a set of standards to control instalment buying of refrigerators, household appliances, radios, and other consumer durable goods after federal controls expire Nov. 1 has been recommended to the 300 member companies of the American Finance Conference.

The suggestion was made by a special committee of the conference, a national association of independent credit companies. The committee said there is a need for controlling inflationary tendencies in credit purchases of consumer durable goods.

Easier down-payment requirements and a longer time for liquidation of unpaid balances in some cases were recommended. It was also proposed that, for the automobile industry, maximum limits for credit advances on new and used cars be based upon cash loan value instead of average retail value, as in the past.

"Liberalization of down payment and length-of-contract terms will tend to preserve an even flow of durable goods which may be purchased on sound instalment terms . . . and make available more and better items at lower cost," the committee said.

Banker Warns Against 'Kick-back' to Dealer

NEW YORK CITY — Commissions or "kick-backs" paid to appliance dealers on instalment paper may have serious consequences for bankers, warned Kenneth R. Wells, assistant vice president of the American National Bank & Trust Co. of Chicago, before the annual convention of the Financial Advertisers Association here last week.

"Bankers paying reserves as a means of securing business invite competitors to offer larger reserves to the dealers so that eventually the business becomes unprofitable for any of them and there is a great

(Concluded on Back Page, Column 4)

Unfranchised Dealers In the Carolinas With 'Acres of Appliances' To Sell Are Legitimate, Say Their Competitors

By George M. Hanning

CHARLOTTE, N. C.—Two of the so-called "hot spots" in the electrical appliance "gray market" of the south are located here and in Winston-Salem, about 80 miles northeast of here.

They are so considered because two of the largest non-franchised dealers in the Carolinas operate in them. These dealers, to the consternation of their franchised competitors, have "acres of appliances" on their display floors ready for immediate delivery.

There's no question about the thriving existence of a "gray market" in appliances in the south, reports Assistant Editor George Hanning after an extensive trip through the area. General aspects of the situation were described in last week's NEWS, while the accompanying story presents a detailed analysis of two "hot spots," in the Carolinas, Charlotte and Winston-Salem.

Because of the small allocations being made to the franchised dealers and the high powered demand springing from high farm and factory incomes and the steady, rapid growth of electrification, franchised dealers find themselves with waiting lists as long as their arms.

To get a range, refrigerator, or washer, through them, a customer with money in his pocket and a desire to buy would have to wait some undeterminate time for delivery.

Customers with money and a pressing need for that refrigerator, washer, or range, generally are not willing to wait. Offered a chance to get it right now, they will take that chance. And, if necessary, they will pay a premium to boot.

So dealers who have their own means of obtaining merchandise have set up stores in key locations and are offering the appliance hungry public just about any standard brand they want and immediate delivery, too.

Outstanding examples of this type operation are the Jefferson Radio & Appliance store in Winston-Salem and the J & S Appliance Co. in Charlotte.

Franchised dealers recognize these outlets and others like them as legitimate dealers and aggressive competitors.

"They have a right to run their business the way they see fit," one Charlotte dealer said. "We can't walk in and tell them how to run their business any more than we would want someone to come in and tell us how to run ours."

B. C. Clinard, president of the Clinard Electric Co. in Winston-Salem, declared, "We haven't got anything against these boys. They are doing a legitimate business. The only way to stop this condition is to put merchandise in the hands of the franchised dealers. It is up to the manufacturers to do that."

Admitting that without merchandise to offer the public, the regular dealers cannot very effectively compete with the unfranchised dealers, they still fight for their market whenever they get a chance.

In institutional advertising, they have drummed into the public that they are the authorized dealer for specific appliances and provide all the services that such dealers offer their customers.

They notify the public of the factory suggested retail prices on different appliances so that customers will know when they are being overcharged.

An advertising executive in Haverty's furniture and appliance store in Charlotte stated that normally the store does not publish the prices of appliances in its newspaper advertising.

However, to combat excessive prices being charged by "gray market" operators in its trade territory, it ran a full-page advertisement on its Hotpoint line prominently featuring the factory recommended list prices of each appliance.

In another advertisement, Hav-

(Concluded on Page 4, Column 4)

Firm Price Set on Chase 60-Day Orders

WATERBURY, Conn. — Re-establishment of a firm price policy on fully specified orders that can be produced and shipped within 60 days is announced by Chase Brass & Copper Co., Inc., here.

"For some time sales of copper and zinc were made on a basis of price in effect at date of shipment, making it necessary for us to negotiate sales on the same terms," the company explained. "Practically all sellers of copper and zinc have re-established a policy of selling at firm prices, which again makes it possible for us to sell our mill products at fixed prices."

Chase said orders for shipment beyond 60 days will only be accepted on the basis of prices to be fixed 60 days prior to date of scheduled shipment. Blanket orders or contracts calling for future specifications and delivery will not be accepted, it added.

300 Tennessee Dealers Report August Sales

NASHVILLE, Tenn.—Electrical appliance dealers in Nashville sold 466 refrigerators, 232 electric ranges, 300 water heaters, and 21 home freezers during August, W. D. Hall, sales promotion manager of the Nashville Electric Service, has announced.

Mr. Hall declared that there are now 181 appliance dealers in Nashville where prewar there were 34.

Pointing out that the city has an average annual kilowatthour residential consumption of 3,350 kwh., he stated that present saturation on refrigerators was 77%, on ranges 52%, and on water heaters 29%.

Though the city owned utility does not plan to merchandise major appliances in 1948, Mr. Hall estimated that Nashville dealers will sell next year 7,500 refrigerators, 5,000 ranges, 3,000 water heaters, 500 home freezers, 3,500 automatic washers, 6,000 conventional washers, 850 ironers, 10,000 radios, and 3,500 vacuum cleaners.

CHATTANOOGA, Tenn. — Electrical appliance dealers here sold $443,436.63 worth of domestic equipment and $120,635.31 worth of commercial equipment during August, the Electric Power Board of Chattanooga has reported.

Unit and dollar volume on major appliances and commercial refrigeration equipment sold by Chattanooga's approximately 120 dealers follows:

Appliance	Unit Sales	Total Sales Value
Refrigerators	433	$111,004.14
Home Freezers	36	11,307.43
Ranges, Electric	313	77,013.57
Water Heaters	248	30,774.37
Ironers	39	4,894.64
Vacuum Cleaners	174	14,458.33
Washers	312	51,855.78
Dryers	11	2,378.31
Dishwashers-Sink Combinations	5	1,997.50
Electric Furnaces	10	8,500.00
Air Conditioning Units	17	44,214.00
Refrigerators, Commercial	10	6,192.04
Freezing Cabinets	3	1,012.40
Beverage Coolers	67	21,942.16
Ice Makers, Water Coolers	3	527.70

'Restraint' on Prices Cited For Appliances

Sears Executive Praises Appliance Mfrs. Before Congressional Hearing

CHICAGO—In the face of a tempting opportunity to do otherwise, manufacturers of appliances and other durable goods have shown "great restraint" in their pricing policies, Theodore V. Houser, vice president in charge of merchandising for Sears, Roebuck & Co., told a congressional price-investigating committee here.

"There are hundreds of manufacturers in the hard goods field supplying goods critically short in supply and in great demand by the public who might have secured much more for their merchandise than their pricing schedules permit," he said.

"Such managements have had a sense of responsibility to the public and to their distributors."

Mr. Houser compared this attitude with that of the textile industry. He accused the latter of selling a good share of its products on a supply and demand basis without restraint.

Increased costs, lower output per employe, government taxes and spending, and an unrealistic parity formula for farmers have all contributed to the high cost of living, he declared.

As an example of increased costs in his field, Mr. Houser cited the following figures:

"The average hourly rate of pay has increased 101% over 1939 and 24% since the beginning of 1946. Newspaper advertising rates are up 10% in the past 12 months. Production costs of catalogs, always a big element of cost in this business, have increased 18% per page from last year and next spring will see another 12% increase on top of that.

"Rates on renewals of leases are higher, so all in all, it is not surprising that the cost of doing business has increased even more than the increase in unit price of merchandise

(Concluded on Back Page, Column 1)

Appliance Dealer 8-Mos. Sales Rise 55% over '46

WASHINGTON, D. C.—Dollar sales by independent appliance dealers in August rose 27% above the August, 1946, level and their sales for the first eight months of 1947 were 55% higher than the eight-month total last year, according to the Bureau of Census.

The 27% increase was the largest in the independent home furnishings field. Furniture store sales were up 6% and floor coverings and drapery store sales 9% over August last year. Sales by radio and musical instrument stores dropped 9%.

Furniture store sales during the first eight months of this year increased 11% over last year's eight-month total, those for floor coverings and drapery stores 21%, and radio and musical instrument stores 41%.

Double Appliance Output Seen If Supply of Steel Increases

BUFFALO—Corley W. Kirby of Cincinnati, domestic sales manager of Crosley Division, Avco Mfg. Corp., asserted here that the nation's major producers could double their output of refrigerators, ranges, and other appliances if they could get sufficient supplies of steel.

He asserted Crosley's appliance production is being held down to about 40% of capacity because of steel shortages.

Dr. Crossman Says Refrigeration May Eliminate Necessity for Amputating Many Damaged Limbs

CHICAGO — When an accident mangles a leg or arm, the damaged member should be kept under refrigeration until the patient has recovered sufficient strength to permit either saving or amputating it.

That's what Dr. L. W. Crossman, attending surgeon at the New York City Hospital, told his associates in a paper prepared for the United States chapter of the International College of Surgeons which met here recently.

Aside from conserving the energy of the victim during time of crisis, refrigerating the stricken limb keeps it from decomposing, Dr. Crossman emphasized.

"A mangled extremity will decompose at ordinary temperatures," he said, "and decomposition cannot be stopped by transfusions, penicillin, or the sulfanilamides, or any means known except refrigeration."

The advent of refrigeration, continued Dr. Crossman, makes it unnecessary to remove a damaged limb as an emergency operation. It also gives the patient a fair chance of retaining the leg, or arm even if wholly severed.

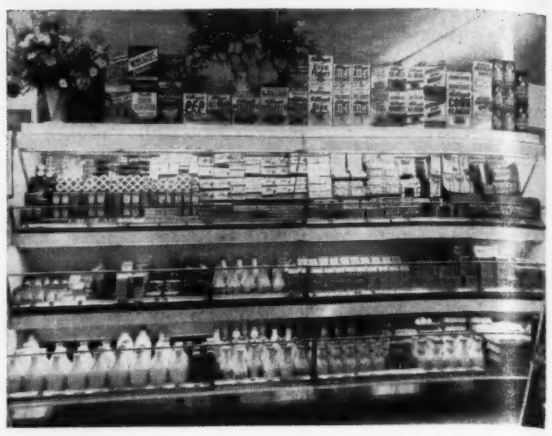
The surgeon described experiments on dogs where a leg was amputated and placed under refrigeration for 24 hours. When later replaced, the canine's leg healed so completely that full use of the amputated part was regained.

"We think this is possible with humans," Dr. Crossman declared, qualifying his statement with "under ideal circumstances and by a thoroughly trained team of not only good surgeons, but also good blood vessel surgeons. We have been successful with fully amputated fingers."

Criticizing wartime treatment of frost bite, trench foot, and other similar ailments, he pointed out that "improper warming of these conditions resulted in many unnecessary amputations."

Initial use of refrigeration and the gradual restoration of normal temperature to the injured member might have avoided such operations, the surgeon added. Similarly burns of the most extensive degree, when treated by refrigeration, prevented delayed shock and infection.

Three-Tier Self-Service Dairy Display Refrigerator Conserves Two Man-Hours of Labor per Day



Installation of the three-tier case, shown at the right, saved King's Sooper Market an average of two man-hours labor each day by eliminating the need for frequent re-stocking of dairy products. Normally this case is only refilled twice daily. Hourly re-stocking was necessary with the former facilities.

* * *

ARVADA, Col.—Installations of a three-tier, self-service refrigerator for dairy products at King's Sooper, new supermarket here, has saved an average of two man-hours of working time per day, formerly spent in re-stocking ordinary self-serve cases, according to Robert Lowry, store manager.

Doing a heavy sales volume with suburban dwellers, truck-farm operators and other country residents north of Denver, King's Sooper feels that the average single case refrigerator is too small and holds too little contents to perform an efficient selling job.

The solution has been installation of the three-tier case, in which all dairy products sold by the store are consolidated. Holding the equivalent of four single cases, the big self-serve case shows butter, cheese and oleomargarine on the top level, milk, cottage cheese and chocolate milk on the second level, and milk in all varieties and sizes on the lowest level.

Under ordinary selling conditions it needs to be restocked only twice a day, in place of the almost hourly restocking required by smaller cases, according to Mr. Lowry.

Rhoy Reorganizes Oakland Distributorship

OAKLAND, Calif.—Dissolution of Western Refrigeration Co. as a partnership operated by T. F. Rhoy, Jr., and Chalmer Tefft and continuation of the wholesale distributorship by the former under the name of California Distributing Co. became effective Oct. 1, Mr. Rhoy announced.

Mr. Rhoy said the company will be located at 2201 E. 14th St., Oakland 6. It distributes refrigeration, air conditioning, and allied equipment.

Thomas Mahan To Control Southland Distributors

CHATTANOOGA, Tenn. — Joseph H. Dych has sold the controlling interest in Southland Distributors, Inc., 412 Hamilton National Bank building here, to Thomas L. Mahan, vice president of the firm, which is a wholesale distributor of commercial and household refrigeration equipment.

Mr. Mahan said that he will assume direction of the corporation's affairs. He will become president and E. M. Mahan, vice president. S. P. Lay, secretary-treasurer of the concern, will continue in the same capacity.

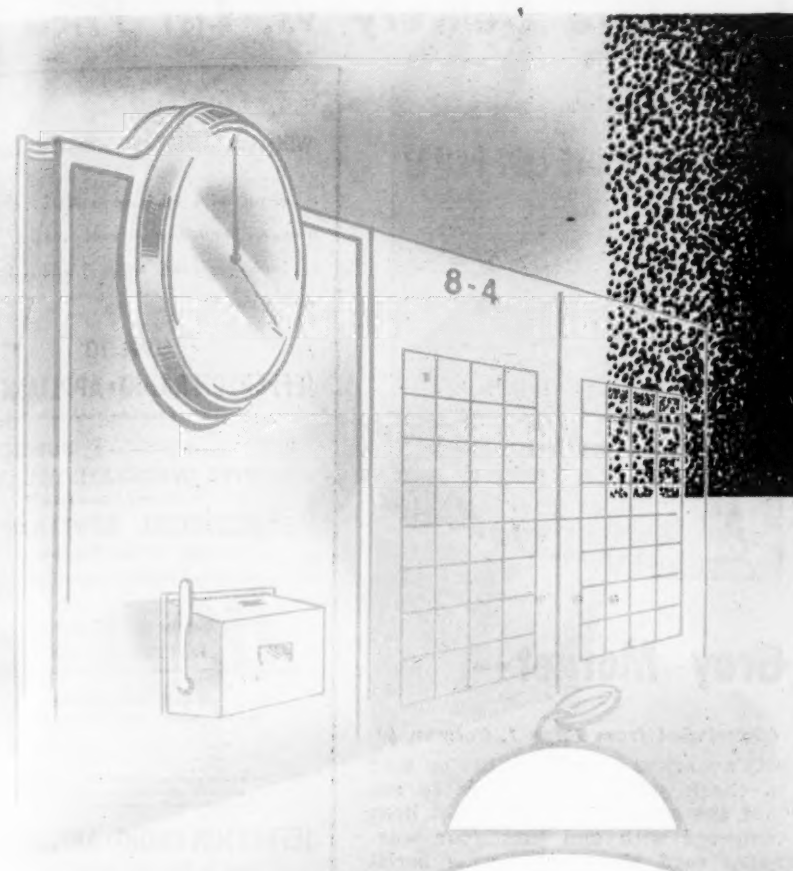
South American Firm Gets $1¼ Million Carrier Shipment

SYRACUSE, N. Y.—Nine carloads of equipment for what is called one of the largest refrigeration purchases ever placed by a South American firm were shipped recently by Carrier Corp. to Colombia.

The equipment, part of a $1,250,000 order, will be installed in eight new breweries now being constructed by Consorcio de Cervecerias Bavaria S/A, Bogota. Included in the equipment were centrifugal refrigeration machines, steam turbines, electric generators, Diesel-electric generating sets, and cooling towers.

Engineers especially trained by Carrier will assemble and install the equipment.

Frezel Low Temperature Self-Service Cases
SERVICE... not REPAIR!
WEBER
Weber Roll-A-Door Frozen Food & Ice Cream Cabinets
Weber Display Master Meat Cases
Weber Peach-In Walk-In Boxes
Weber Soda Fountains
OUR 50th ANNIVERSARY IN 1948
WEBER
PIONEERS IN REFRIGERATION EQUIPMENT
WEBER SHOWCASE & FIXTURE CO., INC. • 5700 AVALON BOULEVARD • LOS ANGELES 54, CALIFORNIA
Sales Offices in All Principal Cities • LOS ANGELES • EL PASO • Warehouse Stocks in Key Metropolitan Areas



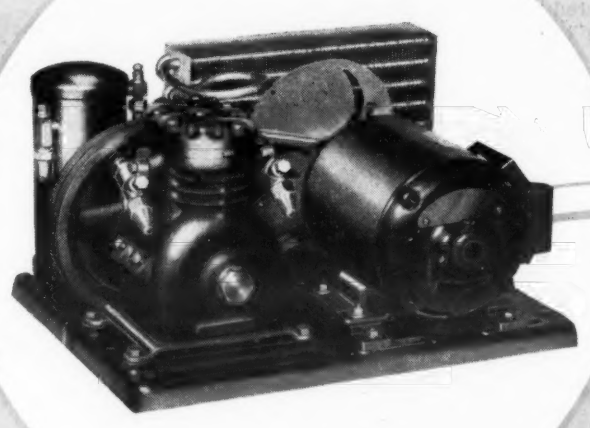
Copeland

DEPENDABLE *Electric* REFRIGERATION

DOES A *FULL-TIME* JOB

Twenty-four hours of every day, Copeland units are on the job, performing dependably. Whatever the application, whatever the requirements, there are dependable Copeland units to fill the bill. Compact and rugged, Copeland units provide maximum refrigeration efficiency at lowest cost.

IMMEDIATE DELIVERY ON 1 H. P. to 7½ H. P. UNITS

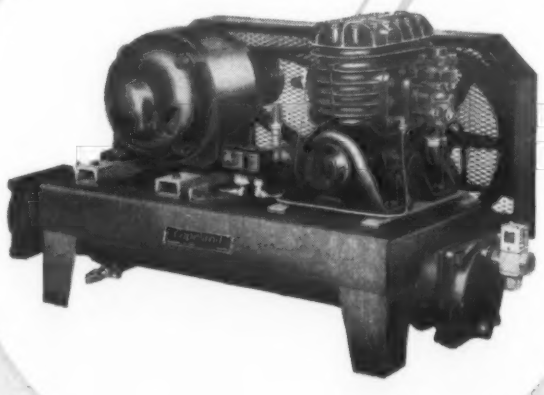


Close-coupled, belt-driven units for self-contained installation. Sizes from 1/6 H.P. to ½ H.P. A model for every range of refrigeration temperature.

COPELAMETIC, the ACCESSIBLE hermetic! Combines all the advantages of open-type units and welded-in hermetics. Eliminates belts, seals, manual oiling. Models from 1/6 H.P. to full ¾ H.P.

Copeland remote units are sturdy, compact. Air-cooled models from ¼ H.P. to 3 H.P. inclusive. Water-cooled models from ½ H.P. to 7½ H.P.

PB-10 Water Cooler . . . Fool-proof, economical, dependable. Famous Copelametic accessible hermetic unit, steel cabinet, stainless steel top and streamlined bubbler. Add the PB-10 to your line for profitable sales.



COPELAND REFRIGERATION CORPORATION ★ SIDNEY, OHIO

New York Office: 71 West 23rd Street — Export Department: 60 Wall Tower, New York City

Proposed Licensing Hit In Nashville--

(Concluded from Page 1, Column 2)

of the public, to issue four classes of licenses.

These are an electrical contractor's license, master electrician's license, electrical maintenance license, and maintenance electrician's license.

The board would be empowered to conduct examinations of applicants for the master electrician's and maintenance electrician's licenses and to approve their applications. It would be further empowered, after notice and hearing, to suspend or revoke licenses when the holder has violated a state law or city ordinance relating the electrical work covered by this ordinance.

Under the proposed ordinance, "an Electrical Contractor's license shall entitle the holder thereof to engage in the business of, and to secure permits for, and to contract for the installation, alteration, and repair of any electrical wiring, conduits, devices, fixtures, appliances, or equipment.

"A Master Electrician's license shall entitle the holder to serve as the supervisor of the work to be done under an Electrical Contractor's license.

"An Electrical Maintenance license shall entitle the holder thereof to undertake the work of maintaining, altering and repairing electrical wiring, devices, appliances and equipment, provided the holder of such license regularly employ one or more electricians for such purpose, one of which electricians must be the holder of a Maintenance Electrician's license, and provided that such work shall be confined to the premises owned, occupied, or controlled by the holder of said license, the location of which premises shall be described in the license.

"A Maintenance Electrician's license shall entitle the holder to supervise the work for and on the premises of the holder of an Electrical Maintenance license."

Mr. Edenfield declared that appliance dealers would only need to have a licensed maintenance electrician in their employ to comply with the intent of the ordinance. Any good dealer, he added, hires a competent electrician to wire his appliances so that they are put in right the first time.

After the bill was first introduced to the city council by Councilman Joe Sadler, a group of about 100 electrical dealers met in protest and formed the Nashville Electrical Dealers Association.

R. A. Coleman of the Cain-Sloan Co. was elected chairman of a committee to lead the campaign to fight the bill. Rayburn R. Townes of General Appliances Corp. was named secretary-treasurer.

Other committee members chosen were Paul Richardson, Southern Electric Co.; Ed Seaton, Seaton Sales Co.; and Marvin Carden, Harvey's.

Association members donated $1,700 at the meeting to carry on the campaign and swelled this to $2,200 a week later, according to Mr. Townes.

At the meeting, Henry P. McCarver, a small electrical contractor, charged that "the cards are stacked —and they are dealing them from the bottom."

He expressed the belief that, if the ordinance were passed, large contractors paying union wages of $1.87 per hour would "take away from us" non-union electricians now paid $1.25.

Ray Edenfield, president of the Edenfield firm, appeared at the meeting and denied that passage of the bill would bring about increased appliance installation costs as the dealers claimed.

He added that the electrical dealers' understanding of the measure, as interpreted by Attorney H. Frank Taylor, was "far off the beam." Mr. Taylor has been hired by the association to help fight the ordinance.

To line up public opposition to the controversial legislation, the association launched a series of newspaper advertisements explaining how the ordinance would affect the public.

Opening advertisement stated that the measure would "affect every home owner and prospective home owner, manufacturer, department store, apartment owner, builder, independent electrician, contractor, electric appliance dealer, and practically every other business carried on in the City of Nashville."

After describing what the bill seeks to do, the advertisement said:

"If enacted, this bill could increase the cost of installation of electrical appliances, wiring, etc., to make it almost prohibitive to the working man.

"TVA brought us low cost electric current—why should a bill be enacted to prohibit us from enjoying this to the fullest?

"The facts are that if this bill is enacted, it could well monopolize the electrical contracting business for a favored few, and all others would fall by the wayside."

Immediate Delivery vs. List Price

YOU DON'T HAVE TO PAY ONE CENT ABOVE LIST PRICE!
It's Here!
THE ONLY WASHER with the famous SPIRAL DASHER
ONE PRICE TO EVERYONE
$149.95
Apex

• • •

Gray Market--

(Concluded from Page 1, Column 4)

erty's warned consumers to "be sure to check your Norge range to see that the serial number has not been tampered with and that your warranty card shows the same serial number as your range."

On the matter of serial numbers, the Clinard Co. in Winston-Salem pointed in a three-quarter page newspaper advertisement:

"Under no circumstances should you buy an Apex washer that does not have a small plate bearing model and serial numbers. It is the practice of black market operators to remove the plate to prevent tracing."

The effect of these advertisements is limited, the dealers will admit, by the lack of merchandise they have to offer the public themselves. It does little good, they point out, to warn the public about too high prices when they cannot get appliances at regular prices.

Mr. Clinard stated that you can't blame a customer, such as one who recently phoned him and said, "I need a range badly now. On your list (and the customer had been on it for some time) it would take me a year to get mine. I can't wait that long. I am willing to pay an $85 premium to get one."

In answer to advertisements such as those mentioned, the Jefferson Radio & Appliance Co. counters with the following:

"To the Folks of Winston-Salem and Forsyth County. Are you tired of pictures and promises? Do you wish to see a new electric range OR would you like to own one? You have heard about the law of supply and demand—over and over.

"Come to Jefferson Radio & Appliance Co. (where the law of supply and demand has been repealed). See —Purchase. Receive immediate delivery on all standard nationally known electrical appliances.

"Our supply will meet your demands. Everything sold with a complete guarantee.

"Jefferson is here to stay, and we appreciate the business this community has given us, and be assured that at all times our prices are standard, service good, appliances the best obtainable, and delivery immediate."

Arthur Poleni, owner of the Jefferson store, says that though his store has been open only since July, its delivery truck is taking loads of appliances out for installation about three times a day.

To The Folks of . . .
WINSTON-SALEM AND FORSYTH COUNTY
. . . are you tired of pictures and promises? . . . do you wish to see a new Electric Range OR would you like to own one? . . . you have heard about the law of supply and demand—over and over
COME TO
JEFFERSON RADIO & APPLIANCE CO.
(Where The Law of Supply and Demand Has Been Repealed)
SEE ——— PURCHASE
RECEIVE IMMEDIATE DELIVERY
On All Standard Nationally Known
ELECTRICAL APPLIANCES
Our Supply Will Meet Your Demands
Everything Sold With a Complete Guarantee
Now Available for Immediate Delivery
ELECTRIC RANGES
WASHING MACHINES
We have hundreds of satisfied customers in Winston-Salem and Forsyth County . . . and you can be one too — Ask your Neighbor.
Jefferson is here to stay, and we appreciate the business this community has given us, and be assured that at all times our prices are standard, service good, appliances the best obtainable and delivery immediate.
JEFFERSON RADIO & APPLIANCE CO.
Owned and Operated by Veterans World War II
Buy It Today — Use It Tomorrow

Franchised appliance dealers in Charlotte and Winston-Salem advertise factory list prices to offset the unfranchised dealer who offers immediate delivery.

The Grand Canyon of the Colorado River, in northern Arizona, is the greatest canyon on earth—200 miles long, eight to ten miles wide, more than a mile deep in many places. The bared rocks, in their riot of reds, buffs, greens, and white, represent geologic time from the oldest known to the present day. Discovered by Cardenas in 1541, it has been a National Park since 1919, a tourist magnet of great importance—and rightly called "the most sublime spectacle in the world."

** A favorite adjective employed by users to describe their Mills Condensing Units.*

Mills Condensing Units

Products of Mills Industries, Incorporated
4100 Fullerton Avenue, Chicago 39, Illinois

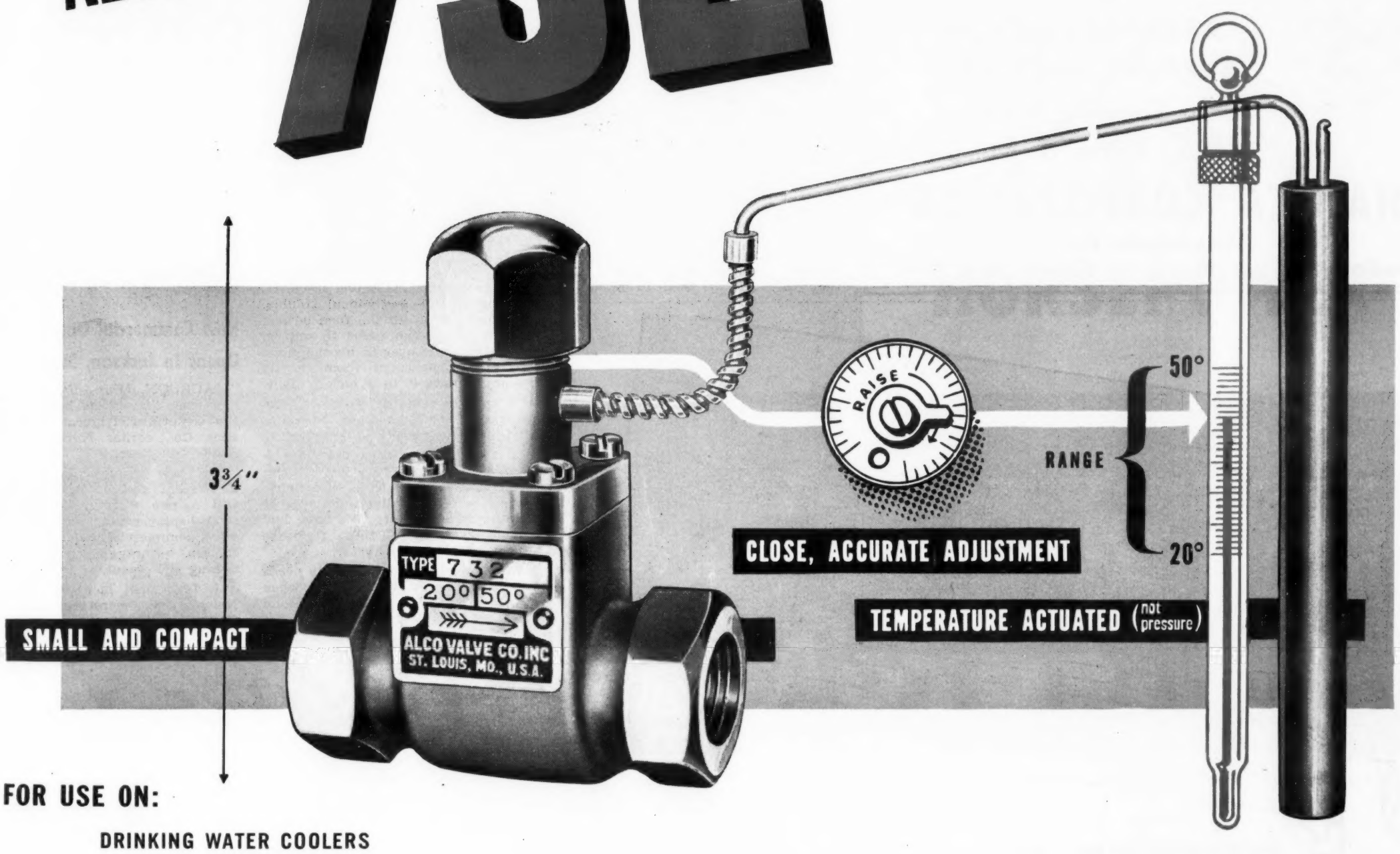
STANGARD
Prime Surface
COLD PLATES
For Maximum
Refrigerating Efficiency

THE STANGARD-DICKERSON CORPORATION
46-76 Oliver Street · Newark 5, N. J.
STANGARD KNOWS REFRIGERATION

Copyright 1945 by The Stangard Dickerson Corporation

Again ALCO pioneers!

ALCO "732" SNAP-ACTION SUCTION VALVE



FOR USE ON:

DRINKING WATER COOLERS
BEVERAGE COOLERS
TWO-TEMPERATURE APPLICATIONS
SUCH AS:
DISPLAY CASES
VEGETABLE STORAGE
SODA FOUNTAINS
AND MANY OTHERS REQUIRING
ACCURATE TEMPERATURE CONTROL

- Complete control in one compact, economical device —directly responsive to actual load temperature.
- Easy-to-set adjustment dial (calibrated in 1° graduations) provides precise control from 20° to 50° F. Operates on only 2° differential.
- Automatic defrost on "off" cycle for load temperatures above freezing. Liquid charged—mount it anywhere.
- Direct temperature control—eliminates the inconvenience and expense of electrical connections—saves time and trouble. No accessories needed.

Available now at your wholesaler's. Ask for Bulletin 732.

Thousands already in use!

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ALCO VALVE CO.

853 KINGSLAND AVE. • ST. LOUIS 5, MO.

Designers and Manufacturers of Thermostatic Expansion Valves; Pressure Regulating Valves; Solenoid Valves; Float Valves; Float Switches.

FACTORY SERVICE MANAGER WANTED

Nationally known refrigeration manufacturer now entering the room air conditioner field has opening for young aggressive service manager who is thoroughly familiar with room air conditioners. Duties will include cooperation with distributors and training of distributors and dealers. Write giving full details.

Box 2523,
AIR CONDITIONING & REFRIGERATION NEWS

"ONE STOP SERVICE"
For Your
REFRIGERATION SUPPLIES and PARTS
also Complete Stocks of
Pipe, Valves & Fittings

HAJOCA CORPORATION
Philadelphia, Pa.
Reading, Pa. Chattanooga, Tenn.

Field Report

One of the NEWS' most popular prewar features, the newly-resumed "Field Report" prepared by the editors and staff correspondents, will continue to report what distributors, dealers, and service contractors are finding out about the market, effective promotion, prices, service charges, etc.

'Cold as Hell' Story Doesn't Sell

'Convenience, Economy' Constitute Selling Points In Winning Rural Freezer Prospects

By George M. Hanning

ANN ARBOR, Mich.—"It's nice and white and cold as hell!"

That, to William Hand, manager of the Grinnel Bros. music and appliance store here, typifies the home freezer presentation handed to curious prospects by today's order-taker-salesmen.

"All of us have to admit that we are not doing a good job of merchandising home freezers," Mr. Hand declared. "We don't know enough about them ourselves. And sure as you're born, the customer doesn't know anything about them.

"We have sold two freezers this week and we sell them as they come in, but the surface of the market is barely being scratched," he emphasized.

Mr. Hand admitted that he has been doing some thinking about home freezers and particularly about how they can best be sold to farmers.

"I have been working with the farmers around here for the past 19 years. I know them by their first names and I know how they operate.

"Farmers are harder to sell, but I believe they buy more intelligently. Of course, if you aren't careful, they will hear your story all the way through and then walk right past your store when they come to town to buy.

"When attempting to sell a home freezer to a farmer, I think that you should sell convenience. That to me is one of the best features of the freezer.

"I've thought about this some, and I have come to the conclusion that it is much more convenient for the farmer to have two 8-cu. ft. freezers than one 15-cu. ft. box.

CRISIS IF BIG UNIT FAILS

"When a farmer has one 15-cu. ft. box and he has mechanical trouble, what happens to all the food he has in it? He has no place to put it. He must cart it over to his neighbor who has some extra room in his freezer or take it to a locker plant.

"With two smaller freezers, the chances of both of them breaking down at once are not very great.

"Also, when he does not have a great deal of food to store, he can turn one off and save electricity. Then, too, two smaller units will fit into his house better. We have had trouble trying to get 15-cu. ft. boxes through some doorways.

"A farmer who has a family needs a lot of storage space. But when his sons and daughters grow up and get married, he finds he does not need all that space any more. If he has two smaller freezers, he can keep one and give the other to one of the children.

"Personally, I think that we can leave the young married couples alone. They don't really become prospects for a freezer until they have some children. Then they begin to see where a freezer can save them money."

Saving money is another good angle to push on freezers, Mr. Hand believes.

"If I were canvassing for home freezers, I would go about a half mile outside the city, where the housewife cannot run to the store any time she wants to. I wouldn't look for the house with the biggest sun porch to call on, I would go to the ordinary house where the family needs to save money.

COSTS YEAR'S BEER MONEY

"When you can show them on paper all the conveniences they will get with a freezer that will cost them only as much as they spend for cigarettes and beer in a year, I think that you can make a sale."

Mr. Hand further expressed the thought that utilities could help the salesman do a good merchandising job by offering free installations.

He also thinks that the home freezer story still needs to be told to the general public by manufacturer organizations and other industry groups.

"A home freezer is an entirely new appliance and needs to be treated as one," he indicated.

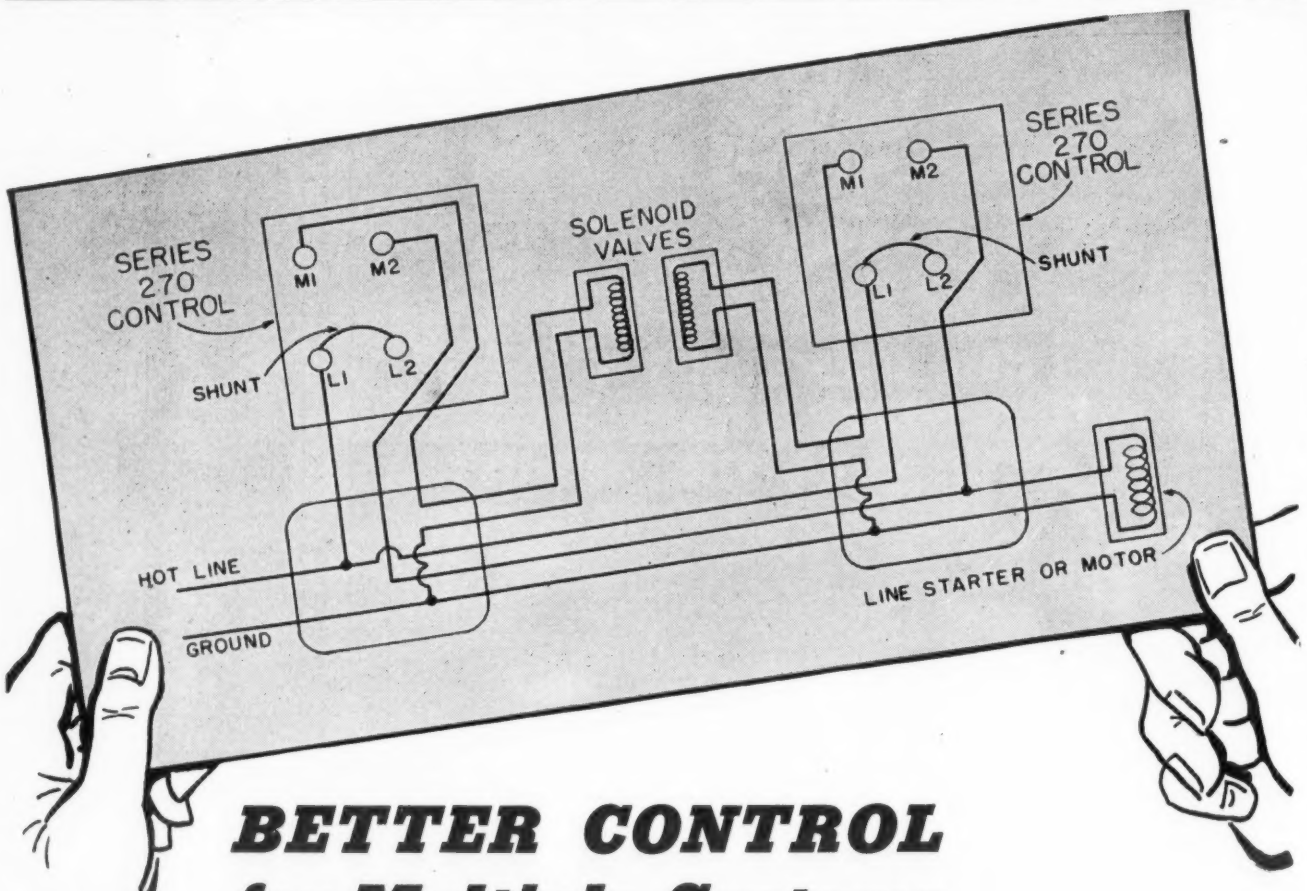
In the end, it all comes down to a matter of salesmanship. Salesmen need to be thoroughly trained in the workings and values of freezers and then be pushed out to "sell" them.

New Commercial Outlet Opens In Jackson, Miss.

JACKSON, Miss.—Formal opening and open house was held Oct. 1 by the General Refrigeration & Appliance Co., corner North State and Amite Sts. here.

The new business is owned by T. E. Wright and A. D. Hopkins, and will handle walk-in coolers, frozen food display cases, reach-in refrigerators, commercial display cases, milk coolers, beverage coolers, air conditioning equipment, and water coolers.

J. L. Jordan is service manager; Nelene Dill, secretary, and K. C. Gallagher, assistant manager.



BETTER CONTROL for Multiple Systems

That's right! The PENN 270 Series Control assures a better and more economical way to control a multiple system. Shown above is a typical hook-up of a multiple system, using the controls for pilot service. Either one of the controls can energize a separate liquid line solenoid valve and start the compressor simultaneously. This is just one way to take advantage of the greater versatility of the PENN 270.

In addition, you can also use the PENN 270 to control polyphase motors of 3 h.p. and under without line starters (where protection is provided against single phasing). You can control two separate load circuits. And when wired in single phase circuits as a 2-pole switch, the 270 always breaks the "hot" line.

You'll like this superior control—*the first and only control to have a load-carrying, 2-pole switch.* You'll like it for its versatility, simplicity, efficiency and dependability. Write for full details on the PENN 270 Series today. *Penn Electric Switch Co., Goshen, Ind.* Export Division: 13 E. 40th St., New York 16, U. S. A. In Canada: Penn Controls, Ltd., Toronto, Ontario.

Series 270 and 272 PENN "Single" temperature or low side pressure controls. Also (not shown) Series 271 and 273 PENN "Dual" Controls which combine in one unit a temperature or low side pressure actuated mechanism and built-in high pressure safety cut-out.

PENN
AUTOMATIC CONTROLS
FOR HEATING, REFRIGERATION, AIR CONDITIONING, ENGINES, PUMPS AND AIR COMPRESSORS

THESE *Little Lugs*

SAVE *Big Money*

Original Specifications for this welded wire shelf called for T-welding and tapping a cylindrical lug to fasten the shelf inside the appliance. It was a precision job calling for accuracy held to 5/1000 of an inch.

Our engineers reasoned that there was a better way, worked out a lug made of flat steel, lap welded to save time and money. The samples submitted were thoroughly tested and found to be equal in performance and appearance to original specifications. The result is a saving of 15 cents on every shelf made, which is passed along to the customer. Since production of this shelf runs into hundreds of thousands, the saving effected over a period of a year is tremendous.

Here at United we feel that it is our duty to give customers the benefit of our 38 years' experience in the manufacture of wire goods. Regardless of what your problem may be, if it's welded wire, or wire and steel, call United first!

UNITED STEEL AND WIRE CO.
BATTLE CREEK, MICHIGAN

NEW Low Cost 1/15th HORSEPOWER

Redmond TYPE "W"... A. C. MICROMOTOR

For a Wide Variety of Fan Applications . . .

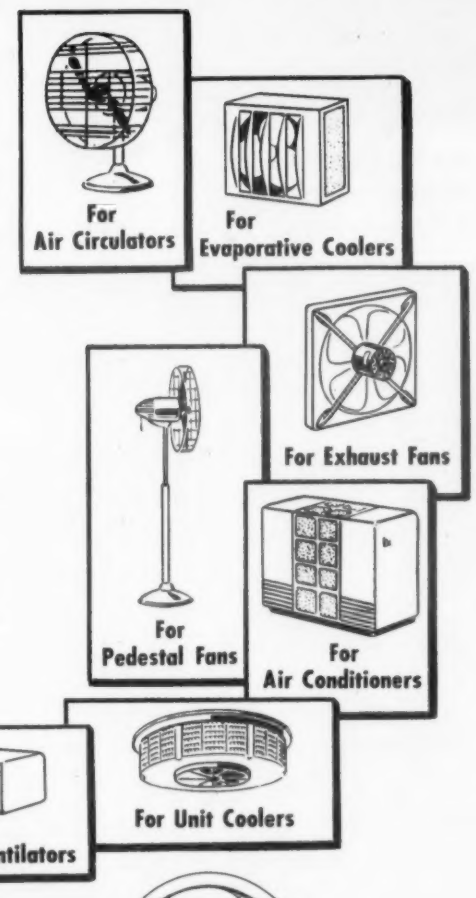
THIS HIGH quality, low cost, 4-pole shaded pole Micromotor, built in sizes up to 1/15th horsepower, is non-radio-interfering and packed with long-life features.

The heart of the type "W" is the patented Redmond "Flush-Weld" precision skewed rotor. In this rotor there are no slots to collect chips, dirt and dust. Extra capacity lubrication circulates through individually fitted, broadly spaced porous bearings. Windings of the finest humidity and oil-resistant type are varnish impregnated. Electric steel laminations are held to strict specifications for precision electrical characteristics.

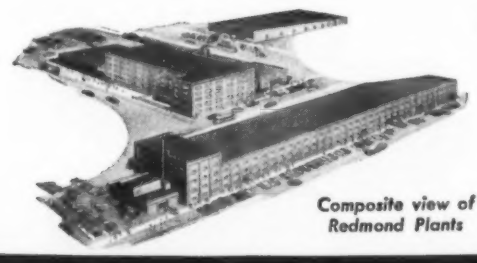
Drop us a line now and get all the details. Get acquainted with the extra *free* services offered by Redmond, such as the Redmond Styling Service and the Redmond Customer Engineering Service.

Built by Specialists

You can expect and will receive complete cooperation on your motor problems at Redmond Company, Inc. Here is an organization of specialists, who manufacture Micromotors, speed controllers and small blower units exclusively . . . *no complete consumer products to compete with the products of customers.*



Expanded facilities . . . Prompt deliveries . . . Service before and beyond the sale

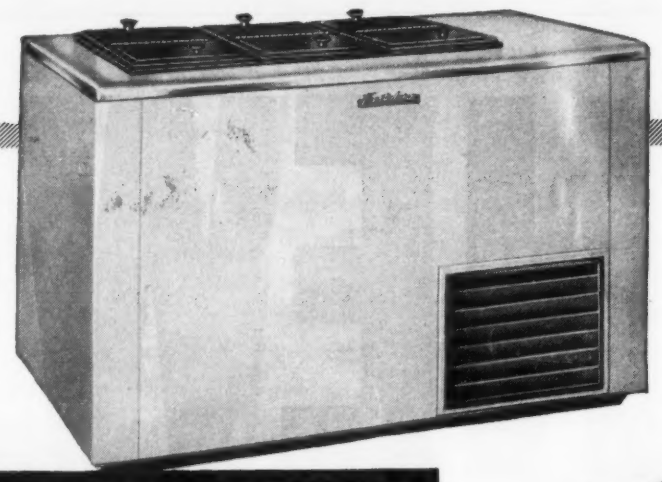


Composite view of Redmond Plants

Redmond COMPANY, INC.

Main Offices: Owosso, Michigan, U. S. A.

REDMOND FACILITIES INCLUDE 3000 EMPLOYEES AND MORE THAN 5 ACRES FLOOR AREA



ICE CREAM CABINETS

IMMEDIATE DELIVERY!

2-4-6-8-12 hole
Complete with or without units

- ALL STEEL CONSTRUCTION
- STAINLESS STEEL TOP with ROUNDED EDGES
- HARD RUBBER FLIP-FLOP COVERS
- WHITE ENAMEL FINISH

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ICE CREAM MANUFACTURERS SUPPLIED

Manufactured by

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Deterioration In Credit Conditions Indicated By Association Survey

CHICAGO—Results of a comprehensive credit survey made recently are said to indicate that a "deterioration" of credit conditions is on the increase.

The survey, made by the Chicago Association of Credit Men, includes 261,358 retail, wholesale-distributor, and industrial accounts and indicates that only 145,735 accounts or 55.7% were taking advantage of discount terms. 88,479, or 33.8% were paying bills when due and 27,144, 10.5% were past due.

In referring to the past-due accounts, James S. Cox, executive secretary of the association, said, "Although the situation is not alarming the percentage indicates a further deterioration of credit conditions."

Comparison of the figure with past years is not possible, according to the association, because this is the first time such a comprehensive survey has been made.

A tabulation of the condition of accounts in each marketing group surveyed follows:

No. & Classification	Percentage Paying Discounting	When Due	Overdue
174,362 Retail	52.9	36.0	11.1
158,719 Whsle.-Distr.	56.5	32.4	11.1
130,950 Industrial	48.5	42.1	09.4

Note: Group totals will exceed the 261,358 accounts surveyed as some were engaged in activities in more than group.

Average age of accounts due was 32.69 days, according to the associations survey.

Public Views Commercial 'Meter-Miser'

Frigidaire's new commercial "Meter-Miser" is being demonstrated for J. W. Stevens, left, field secretary of the Individual Grower Association, by J. J. Tenge, right, Frigidaire dealer in St. Louis. The occasion for the first public showing of the commercial "Meter-Miser" was the 62nd annual convention of the National Association of Retail Meat Dealers, held recently in St. Louis.

Norfolk Dealers Ask Delay on Ordinance

NORFOLK, Va.—Electrical appliance dealers here have asked the city council to postpone for one year the effective date of a new ordinance which prohibits the sale of electrical appliances not approved by Underwriters Laboratories.

The action was taken after the council made the ordinance effective in six months, despite the dealers' protests that they would be unable to clear their present stocks and orders in that time.

Although it was not known how the council reacted to the extension request, city attorney Jonathan W. Old said there may be some question about the constitutionality of a law making an unofficial and outside organization legal judge of a local problem.

Refrigeration May Boost India's Potato Harvest

SYRACUSE, N. Y.—India's old famine-producing problem, the loss of seed between crops because of the country's high heat and humidity, is being fought with modern refrigeration equipment produced by Carrier Corp.

Four seed potato warehouses located in Lahore, Delhi, and Gurdaspur, have been equipped with specially designed refrigeration units to reduce the 35 to 75% spoilage which has been India's yearly record between harvest and planting. The installations were made by Volkart Brothers, Bombay, Carrier distributor.

Volkart Brothers declare that double benefits are expected from the installations, which are backed by India's Department of Education, Heath, and Lands. First, there will be a big reduction in seed potato losses, and secondly, because of the lower spoilage rate, seed will be sold to Indian farmers at lower cost.

Gov't To Study Shipping, Pre-Packaging of Foods

WASHINGTON, D. C.—Two research projects designed to preserve quality and increase acceptability of fresh fruits and vegetables have been set up by the U. S. Department of Agriculture under the Research and Marketing Act of 1946, E. A. Meyer, administrator, announced Sept. 22.

One project deals with pre-packaging. The other is a study of methods to prevent decay and spoilage in shipping. Both projects will be conducted by transportation and storage specialists in the Bureau of Plant Industry, Soils, and Agricultural Engineering.

In the first project, specialists will determine whether pre-packaging should be done where the produce is grown or at the terminal markets. They will investigate the suitability of moisture-vapor proof, gas proof, and porous plastic wrappings for various commodities.

Also, they will evaluate different methods of washing, trimming, refrigerating, shipping, and displaying pre-packaged produce in comparison with the usual offerings of bulk produce.

Diseases that cause enormous shipping losses in fruits and vegetables will be studied in the second project. These include stem-end rot of citrus fruit, bacterial soft rot of vegetables, and blue mold rot and gray mold rot of apples and pears.

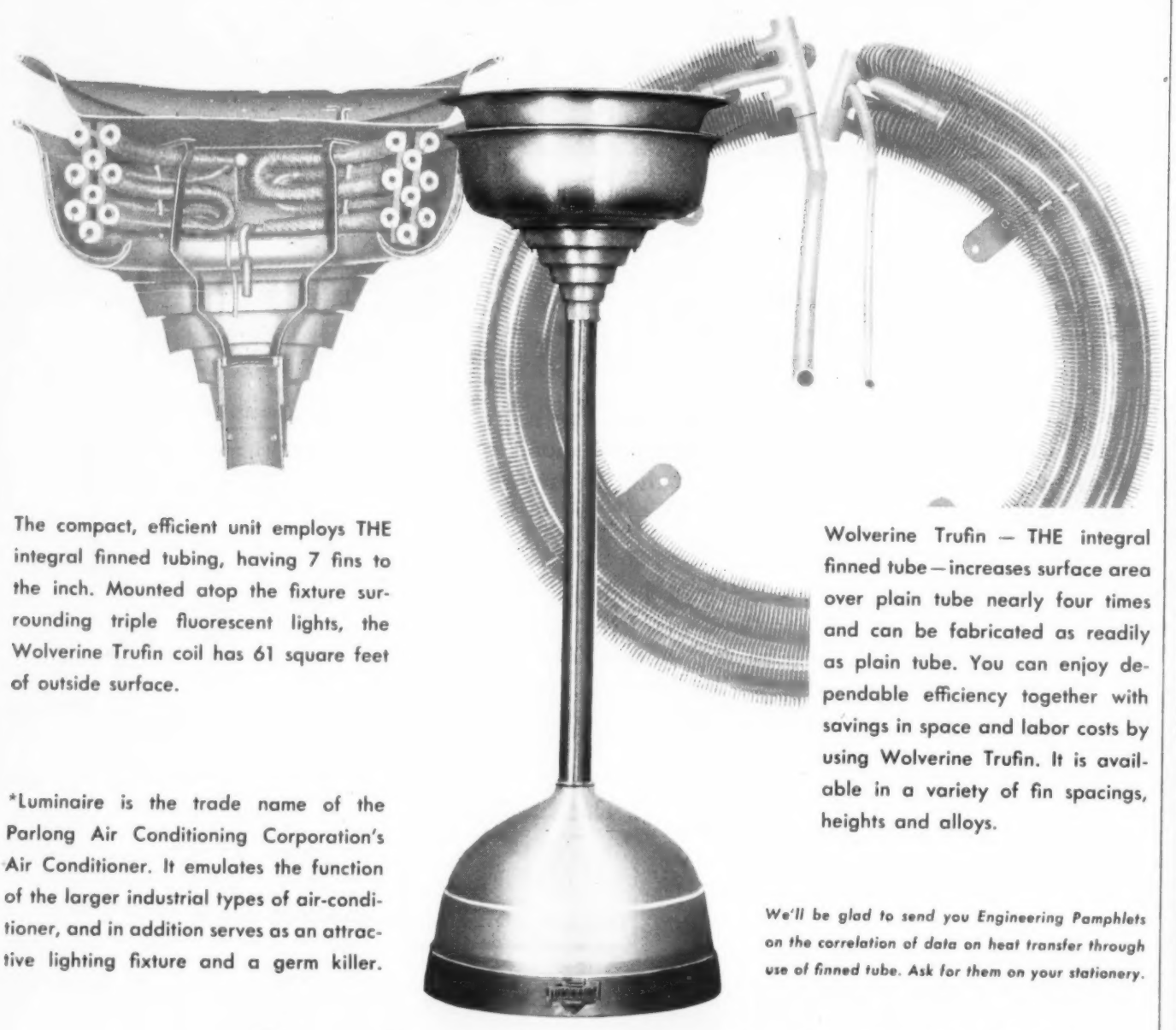
Researchers will examine the possibility of reducing these losses by the use of various fumigants and disinfectants or antiseptic washes. They will also investigate the influence of types of containers, ventilation, refrigeration or heater service, and the effect of delays under various shipping conditions, on decay and spoilage of fruits and vegetables.

Both of these projects were given high priority in recommendations submitted by the advisory committees dealing with fruits and vegetables.

WOLVERINE TRUFIN

Cools The Air In The New Luminaire*

Again, Wolverine Trufin, THE integral finned tube, demonstrates its pronounced versatility! In this instance it forms a substantial part in a unique appliance — the Luminaire Conditioner. Formed into a coil, Trufin serves as the evaporator for the unit for cooling and dehumidifying the air.



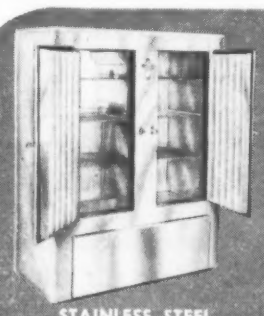
The compact, efficient unit employs THE integral finned tubing, having 7 fins to the inch. Mounted atop the fixture surrounding triple fluorescent lights, the Wolverine Trufin coil has 61 square feet of outside surface.

Wolverine Trufin — THE integral finned tube—increases surface area over plain tube nearly four times and can be fabricated as readily as plain tube. You can enjoy dependable efficiency together with savings in space and labor costs by using Wolverine Trufin. It is available in a variety of fin spacings, heights and alloys.

*Luminaire is the trade name of the Parlong Air Conditioning Corporation's Air Conditioner. It emulates the function of the larger industrial types of air-conditioner, and in addition serves as an attractive lighting fixture and a germ killer.

We'll be glad to send you Engineering Pamphlets on the correlation of data on heat transfer through use of finned tube. Ask for them on your stationery.

WOLVERINE TUBE DIVISION
CALUMET & HECLA CONSOLIDATED COPPER COMPANY
MANUFACTURERS OF SEAMLESS COPPER & BRASS TUBING
1411 CENTRAL AVENUE • DETROIT 9, MICHIGAN



STAINLESS STEEL REACH-IN REFRIGERATOR

QUALITY BUILT THROUGHOUT

DRY BEVERAGE COOLER

Crown

For Beauty..... CROWN
For Construction... CROWN
For Economy..... CROWN

CROWN manufactures a complete line of the finest commercial refrigeration equipment. Our superior craftsmanship assures perfect performance.

- REACH-IN REFRIGERATORS
- BEVERAGE COOLERS
- FROSTED FOOD CASES
- FREEZERS
- DISPLAY CASES
- ICE CREAM CABINETS

IMMEDIATE DELIVERY
DISTRIBUTORSHIPS AVAILABLE

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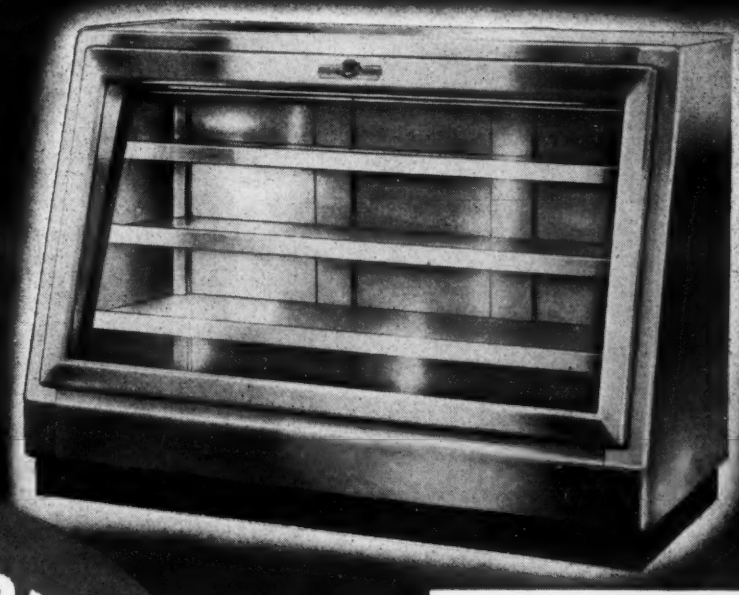
FACTORY & NATIONAL SALES OFFICE
METUCHEN, NEW JERSEY
EXPORT DIVISION: 154 NASSAU ST., NEW YORK 7, N. Y.

100% METAL CONSTRUCTION

for lifetime service!

MODEL No. CSU-48
COMBINATION
SANDWICH UNIT
AND TOASTER STAND
48" LONG



6' FULL VISION
DISPLAY CASE
—3 LAYERS THERMO PANE

THE REFRIGERATION OF TOMORROW *Today!*

VIMCO
WHERE QUALITY & SERVICE PREVAIL

Solidly WELDED THROUGHOUT

No chip, no peel, no corrosion, indestructible, sanitary stainless steel, inside and outside.

Permanent steel foundation for lifetime durability.

There's not a sliver of wood in the construction of the advanced design Vimco cases.

Truly the Refrigeration of Tomorrow is yours TODAY.

Each of these four Vimco cases is a streamlined masterpiece of smart, practical design that provides users with the most in serviceable space and efficient service. Every attention has been given to detail and finish. All inside corners are rounded for sanitation and easy cleaning.

The enthusiastic reception given to Vimco's Refrigerated Cases is recognition of their fine craftsmanship and sterling value.

You'll want a Vimco. Orders accepted now for prompt shipment. Write or wire for complete details, and our new catalog.

DIRECT DRAW
BEER DISPENSER
2 BEER—1 WATER. 3 BEER—1 WATER

BOTTLE COOLER
AVAILABLE IN
4 SIZES . . . 4', 5', 6', 8'

Victory METAL MANUFACTURING CORP.
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Durable Goods Account For Two-Thirds of Boost In Mfr.'s Sales In July

WASHINGTON, D. C.—Manufacturers' sales during August rose $300 million to $13.4 billion, a 2% increase over July, and the book value of their inventories increased $200 million to a new record peak of $22.9 billion, according to preliminary estimates by the Department of Commerce.

The department said the durable goods group accounted for more than two-thirds of the sales increase. Total sales were reported as amounting to $5.9 billion. By increasing $100 million in August, non-durable goods sales were again back at the $7.5 billion level of April.

For the first time since the beginning of the year, the increase in the book value of inventories was equally divided between durable and non-durable goods industries. Durables have been responsible for the larger part of increases in previous months.

The value of durable inventories at the end of August was reported at $12 billion and that of non-durable inventories as $10.9 billion.

Ward Refrigerator Promotes Fitch to Asst. Sales Mgr.

LOS ANGELES — Promotion of Gordon H. Fitch from representative in the Chicago territory for Ward Refrigerator & Mfg. Co. to assistant sales manager of the firm was announced recently by D. T. Ward, vice president. Mr. Fitch will be located at the head office here.

Date Set for 2nd Western Refrigeration Exhibit

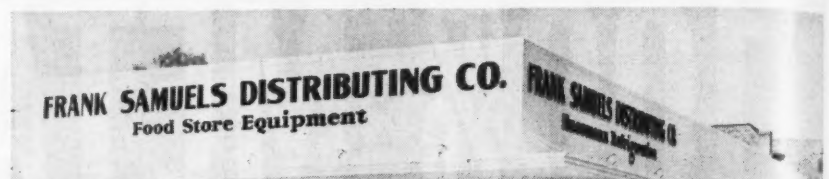
SAN FRANCISCO — The second annual Western Refrigeration Educational Exhibit and Conference sponsored by the California Association of Refrigeration Service Engineers Society will be held in the Palace hotel here April 30 through May 2.

David Fagg is general chairman of the conference, aided by W. E. Wharton, coordinating chairman; Rowland F. Cooke, entertainment and arrangements; M. B. Willis, contracts, and C. L. Rusten, publicity.

J. Pat Riley is president of the state group sponsoring the event.

At the first show, held during April of this year, approximately 3,600 attended exhibits which were erected at the Municipal Auditorium.

Model Design, Location for Commercial Dealer



In addition to ample display windows on two sides, the newly occupied location of the Frank Samuels Distributing Co., commercial refrigeration dealer, has an adjacent parking lot for visitors.

New Site Aids Distributor To Push Self-Serve Cases

PHOENIX, Ariz.—Frank Samuels Distributing Co., exclusive food store supply house established in Phoenix in 1928 by its present owner and manager, Frank E. Samuels, has moved from its old location at 141 East Van Buren St. to its own newly completed building at 416 North Seventh Ave.

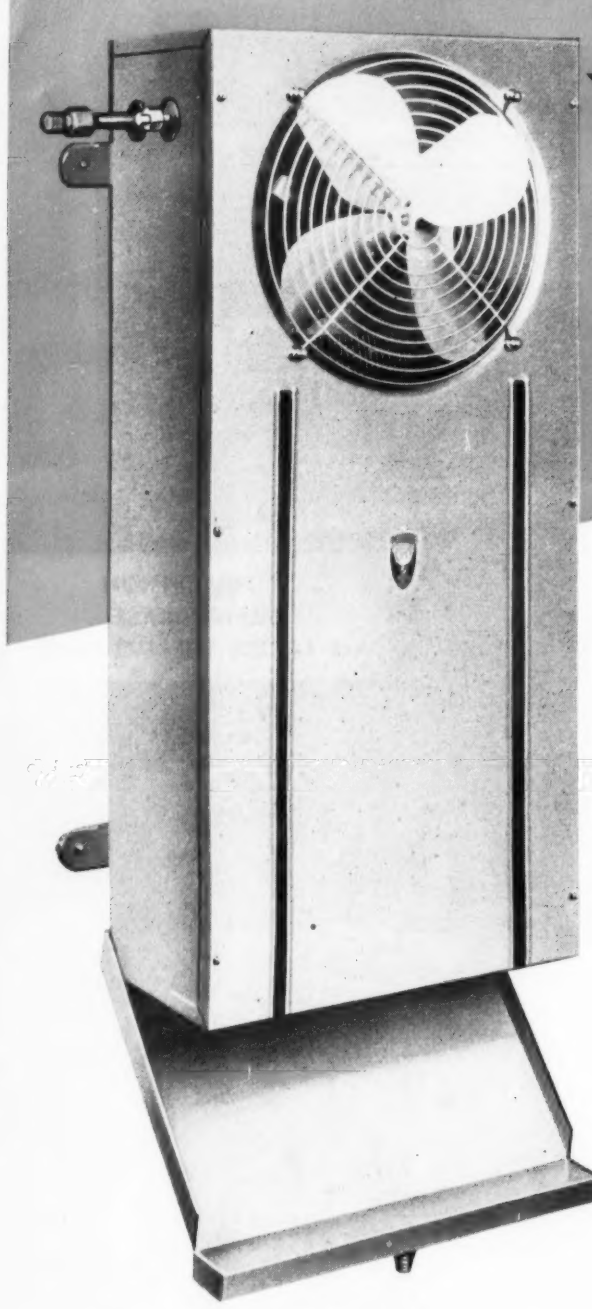
This location affords superior contact advantages to visiting store executives, being just outside the zone of high traffic density and recently widened parking meter district.

Concentrating on Hussmann refrigeration products, Mr. Samuels has placed self-service meat cases in eight important markets in the Phoenix trade area during the last two years along with conventional type cases and other food store equipment.

The line is now displayed to excellent advantage in the 40 by 50-ft. front display room of the new Samuels building, with large display windows on north and east street fronts.

Visiting national travelers have expressed their opinion that the new Samuels store, with 40-ft. front and 100-ft. depth, flanked by a 20-ft. parking space on the north side, is a pace setter which ranks well to the front by up-to-the-minute standards.

This business was started by Mr. Samuels in 1928, when stores refrigerated with a bunker in the end of the case, filled with cracked ice and added salt, he recalls.



GUN COOLERS

● First as usual, Peerless conceived, created and now further improves the Gun Cooler line! Here is refrigeration as easy to install as hanging a clock. All engineering is done at the factory! Revolutionary, proved successful in thousands of installations, it reverses operation of conventional blower-type units, performs in upside-down fashion! Warm air is drawn into the grill at top of cooler, pours gently out the bottom chilled to the proper degree, absorbs heat from the stored products and rises to be re-chilled by the Gun Cooler. A sound, effective cooling cycle!

Peerless ANNOUNCES NEW MODELS!

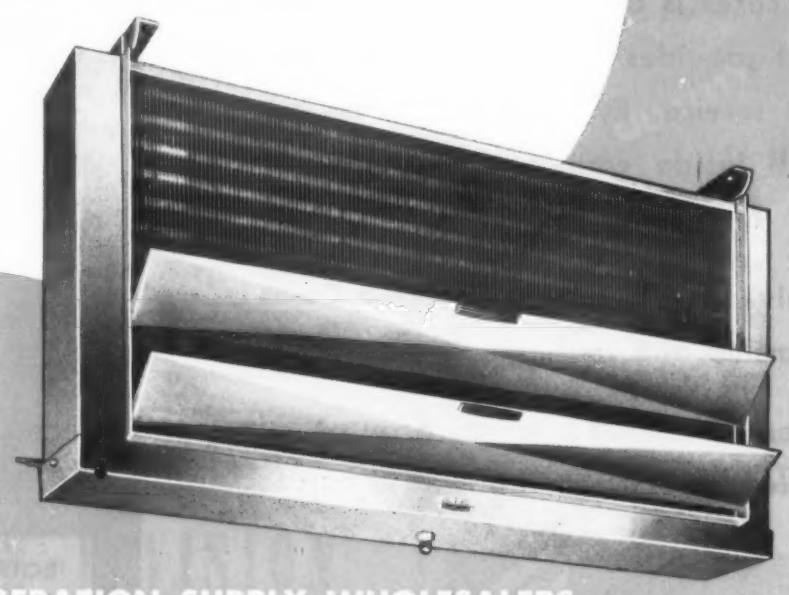
The Famous PEERLESS GUN COOLERS and Large UNIT COOLERS with Flash Tube Fin Coils!

● Literally champions! In smart styling, advanced design, and because they have an air-tight record for superior cooling at minimum operating cost. Peerless Unit Coolers never let their users down! Now more than ever, these coolers substantiate their reputation for "More Refrigeration per Dollar." New models, new improvements, everything which contributes to utter satisfaction is included in their make-up—beauty, compactness, unfailing mechanical performance! Attractive casings are heavy gauge, highly polished aluminum. In these units the basic Peerless policy stands out clearly—to produce low cost equipment by engineering developments, not by cutting corners! No sacrifice has been made in construction, materials or workmanship —nothing spared to make Peerless Unit Coolers the champions of their class.

● For superior performance specify all these PEERLESS products: Flash Plates, Flash Coolers, Unit Coolers, Ice Cube Makers, Fin Coils, Off Center Coils, Expansion Valves and Capacity Boosters. Write for details.

LARGE CAPACITY UNIT COOLERS

● Designed especially for installations requiring large refrigeration capacity in a minimum of space, these models are made long and narrow. They fit closely to the refrigerator ceiling, save storage space and reduce possibility of air being blown directly on the stored product. A typical Peerless product in attractive styling and painstaking workmanship.



SOLD THROUGH LEADING REFRIGERATION SUPPLY WHOLESALERS

PEERLESS of AMERICA, Inc.

General Sales Offices 2901 Lawrence Ave. ● Chicago 25, Illinois, U. S. A.

It's a REVELATION —that's all!

★ Exclusive Dealer Franchise
★ Now in quantity production
★ All sizes: Industrial and Commercial
★ The last word in...

ELECTRIC WATER COOLERS

Revelation Company
Division of
Interstate Engineering Corporation
2600 Imperial Highway
El Segundo, California

Dakota Dealer Finds It Necessary To Go Into Construction Business

BROOKINGS, S. Dakota — Calvin Bruce, president of the Bruce Refrigeration Engineering Co. here, reports that his firm has started construction in Rapid City, S. D., of a new 50-ton capacity refrigeration plant for the Rapid City Crystal Ice Co.

The plant when completed will be the second largest ice plant in South Dakota.

Only recently has the Bruce firm branched out into the general construction field. It originally concentrated on refrigeration engineering only. However, at the present time the firm is constructing a roundhouse in Chadron, Neb. It maintains a locker plant and refrigeration repair service that covers several midwestern states.

The new construction work of the firm is the outgrowth of the company's refrigeration business. Because Bruce found it hard to synchronize the construction of a locker plant with the actual installation of the refrigeration machinery, they finally decided to handle the construction work as well. Now they have moved into the general contracting field.

New Service Accounts Highest In Bad Debts, Says Pittsburgh Firm

PITTSBURGH — Experience with new accounts on emergency work has resulted in an average of two $15-$20 bad debts a month because parts other than the one repaired broke down soon afterwards, reports F. Dovin, service manager, Pittsburgh Soda Fountain Service Co., 179 43rd St. here.

Partly responsible is the charge for temporary service necessary when the unit cannot be repaired immediately.

"Suppose we bring a unit into our shop," explains Mr. Dovin, "can't repair it immediately because of lack of parts, but install temporary service for two months, then are able to install their own unit, completely repaired.

"Difficulty is that a second break entirely foreign to the original repair occurs before the patron has paid his bill the following month, and the account feels that because the motor, for example, was fixed, everything else ought to run smoothly for months."

More Than 5,000,000 Lbs. of Wyoming Game Went In Frozen Storage

CHEYENNE, Wyo. — A total of 5,479,404 pounds of big game meat with an estimated total food value of $1,095,880 was stored in cold storage and freezer locker plants by hunters who killed 31,683 elk, deer, antelope, moose, mountain sheep and bear in Wyoming last year, it was reported by the state game and fish department.

An even larger kill is expected to go into cold storage lockers from the 1947 open season, with antelope kills in September reported to be 50% greater than a year ago by locker plant operators here and in Casper, Rawlins and Laramie.

Elk and deer and accounted for the bulk of the meat going into lockers last year, with 9,197 elk bagged for an estimated $569,317.34 food value and locker storage weight of 2,846,586 pounds of dressed-out meat. The 12,975 deer killed produced 1,733,207 pounds worth $346,641.52 at 1946 prices of meat.

Kotel Is District Sales Supervisor for Koch

NORTH KANSAS CITY, Mo.— William V. Kotel has been named district sales supervisor in the north central territory for Koch refrigerators, according to R. H. Starr, vice president.

Mr. Kotel's territory will include Minnesota, Iowa, Michigan, Wisconsin, Indiana, and the northern portion of Illinois. He was formerly with D. A. Matot & Co., Chicago, as sales manager.

THE ONLY COMBINATION FOOD AND BEVERAGE COOLER THAT CAN BE OPERATED WET OR DRY

THE NEW

ARTKRAFT BEV-FOOD

AT ONLY $385 RETAIL (f.o.b. factory) IT OFFERS THE LOWEST COST PER CUBIC FOOT USABLE REFRIGERATION SPACE IN THIS SIZE RANGE

A high quality, self-contained 'plug-in' unit.

Each compartment can be used entirely for dry refrigeration.

Top opening prevents spill-out of cold.

IDEAL FOR:

RESTAURANTS
ROADSIDE STANDS
DAIRY STORES
HOTELS
TAVERNS
FISH MARKETS
FACTORY CAFETERIAS
HOSPITALS
SODA FOUNTAINS
BOWLING ALLEYS
MEAT MARKETS
DELICATESSENS
CANDY STORES
DRUG STORES

SPECIFICATIONS:

Sealed cabinet: 65⅜" x 38" x 29½".
Solid 3" insulation—Vermin-proof.
Top compartment: 35¾" high x 20¾" wide x 15½" deep. (Slightly over 6½ cu. ft.)
Food compartment: 21¼" wide x 28⅞" high x 20¾" deep. Slightly over 7½ cu. ft.)
Total storage capacity: 14 cu. ft.
Finish: Exterior—Silver blue.
Interior—White porcelain enamel.
Top and 2 sliding covers, stainless steel.
Condensing Unit: ¼ H.P., twin-cylinder air cooled. Equipped with Tecumseh or Universal Unit.
Motor: ¼ H.P., 60 cycle, single phase, 1750 r.p.m., 110 volts, capacitor type.
Refrigerant: F-12 Freon.
Automatic light in food compartment.
8-point cold control.

PRESERVES WITHOUT INTERMINGLING OF ODORS

HAMBURGER
30 days at normal temperature

SWEETBREADS
10 days without spoilage

STEAKS • CHOPS • FOWL
Almost indefinitely

FISH
Better than with ice

CREAM PIES
A week or more

DEALERS:

Ask your distributor for this great profit-maker—or write us for his name. Distributed in many areas by G.E. Supply Corp.

DISTRIBUTORS:

Write for details of franchise for open territory.

The Artkraft Manufacturing Corp.

Quality Products for more than a Quarter of a Century

200 KIBBY ST., LIMA, OHIO, U.S.A.

THIS COUPON FOR YOUR CONVENIENCE

THE ARTKRAFT MANUFACTURING CORPORATION
200 KIBBY ST., LIMA, OHIO, U.S.A.

☐ Please send more details on BEV-FOOD.
☐ Please send the name of the BEV-FOOD distributor in this territory.
☐ Please send details of distributors' franchise.

NAME.....

FIRM.....

CITY.....

★ Shelves are the parts a prospect *sees* first when she looks inside a refrigerator, and *uses* most after she buys. Every bit of extra eye-appeal and convenience you can build into shelves pays off in extra sales. For over 40 years we have been building shelves that combine outstanding beauty and sturdiness. Today we are even better able to serve you than ever before, having just completed a million dollar plant addition. We can give you shelving to any specifications in quantities to meet your production schedules. Call or write *today* for details.

DESIGN CONSULTATION SERVICE . . .
Take advantage of Union Steel's Design Consultation Service which frequently leads to a better shelf for less money.

UNION STEEL PRODUCTS CO.
531 Berrien St., Albion, Michigan • Telephone: Albion 147

With 'Famine' over, Dept. Store Sales Show 8% Rise

WASHINGTON, D. C.—Ending a "sales famine" of several weeks duration, department stores throughout the country experienced an 8% increase in sales during the week ending Sept. 20, as compared with a like period last year.

The previous week's report had listed a 1% drop and the week ending Sept. 6 had shown a 1% increase in sales.

Largest comparative rise was registered by New York City stores where sales climbed 19% over last year's level. In releasing the report, the Federal Reserve Board explained that a strike of delivery service employes in 1946 played a part in the low figure of that year.

Those districts showing gains were: Philadelphia 12%; Chicago 10%; St. Louis 10%; Cleveland 8%; Kansas City 8%; Boston 4%; and San Francisco 4%.

Store closings due to the hurricane were reflected in Atlanta's drop of 4% in sales. The Dallas district was down 8% and the Richmond district, 4%.

'Free Tablet' Offer Brings Traffic to Syracuse' Dealership

SYRACUSE, N. Y.—Markson's, 221 North Salina St., appliance dealer, created store traffic by offering a free school tablet to children accompanied by their parents. The tablet included the child's name written in gold. It was a one-day offer and no purchase was necessary.

Getting It Down In Black and White

THE MAY COMPANY
DENVER

No. ..... Date .....

In consideration of your initial deposit, the May Company agrees to deliver the merchandise of your selection when and if available according to the priority position established by this agreement. Each priority agreement will be time registered so that you will receive your merchandise delivery in the same sequence as the registrations are dated.

Your initial deposit of $..... is accepted in order to establish a priority position for the following merchandise:

ITEMS:

.....

.....

.....

It is suggested that subsequent monthly deposits be made for the purpose of accumulating a down payment in accordance with the necessary credit requirements in effect at time of delivery, subsequent payments to be made at the Credit Office on 4th Floor.

Your initial and subsequent deposits are accepted by the May Company subject to the following conditions:

(1) This priority agreement does not constitute a final sales contract and will be subject to your approval of merchandise, price, and terms.

(2) Our acceptance of your initial and subsequent deposits does not constitute credit approval.

(3) Before delivery of the merchandise, there must be on deposit with the May Company the amount of cash down payment necessary to conform to government and/or store regulation in effect at the date of delivery.

(4) Initial deposit must be at least $10.00.

(5) Actual price will not be in excess of the established ceiling price prevailing at delivery date.

(6) Please sign and return the original of this agreement with your deposit, and retain the duplicate for your files.

.....
Customer's Signature

.....
Address

• • •

Form Outlining Deposit, Delivery Terms Spurs Confidence of May Co. Customers

DENVER—The appliance management of the May Co., Denver department store, has developed a standardized deposit slip which goes a long way toward retaining the confidence of major appliance customers.

The printed deposit slip appears on a store letterhead, with a space at the right top corner for the number and the date. It states that in consideration of an initial deposit, the May Co. agrees to deliver merchandise selected when available, and explains the sequence in which the registrations are honored. In the center is a space for the initial deposit of $..... accepted in order to establish a priority position for merchandise. Three blank spaces follow.

At the bottom are printed six considerations which the appliance prospect is asked to remember:

First, states that the priority agreement does not constitute a final sales contract, and will be subject to customer's approval of merchandise, price, and terms.

Second, acceptance of initial and subsequent deposits does not constitute credit approval.

Third, there must be on deposit with the May Co. the amount of cash down-payment necessary to conform with government and store regulations in effect at the date of delivery.

Fourth, initial deposits on any appliance must be at least $10.

Fifth, actual price will not be in excess of the established ceiling price prevailing at delivery date.

Sixth, please sign and return the original of this agreement with the deposit and retain the duplicate for your file. The customer signs the agreement form, which is also signed by the salesman.

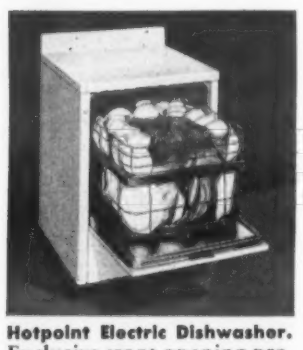
To make each deposit form more important to the customer, the May Co. appliance department has determined to put the delivery date estimate in writing on each contract. Therefore, rubber-stamped in the top left corner of each form is a message which reads:

"Barring unforeseen manufacturing delays and deliveries, and based on our present allocation, appliance for which you have just registered should be delivered on or about ..... Should this merchandise become available at an earlier date, you will be notified immediately."

The central appliance office furnishes all salesmen with an estimate as to when deliveries can be made every day, and by rubber-stamping this estimate on the form, and initialing it, salesmen receive far more confidence from their prospects than by "merely taking the name."

EVERY MONTH OF THE YEAR!

Hotpoint Electric Range with 11 improvements, 25% more surface cooking capacity, larger oven—a year 'round seller.



Hotpoint Electric Dishwasher. Exclusive front opening provides extra work surface. A great feature—wide public interest in automatic dishwashing assures large-scale selling.

Star performer of America's fastest growing appliance line is the new Hotpoint Refrigerator offering ⅓ more storage in the same kitchen area.

HOTPOINT'S COMPLETE MATCHED LINE OF APPLIANCES MEANS GREATER DOLLAR VOLUME FOR DEALERS—MAKES HOTPOINT THE FRANCHISE WITH A FUTURE!

HOTPOINT, America's foremost planner of Electric Kitchens, focused the attention of millions of home-minded people on matched appliances for the modern kitchen.

...And Hotpoint builds a beautifully matched and complete ensemble of all major appliances. Sold as a "package" in the complete Electric Kitchen, or unit by unit—you'll find it adds up to $2,000 or more per customer. That's why Hotpoint is the "Franchise with a Future"... why this matched line of appliances means sales every month of the year—greater dollar volume for you.

Everybody's Pointing to Hotpoint —and its 3-Point Program

1. A $20,000,000 expansion program. New facilities. Dynamic new personnel.

2. A completely matched line of major appliances that makes selling easier—more profitable.

3. Biggest Advertising and Merchandising program in Hotpoint history to carry this story to your customers.

WATCH...
for Full-Color Spreads like these in October 6th Life, October 25th Post, October 20th Time, October issues of American Home, Better Homes & Gardens, Farm Journal and other leading national magazines.

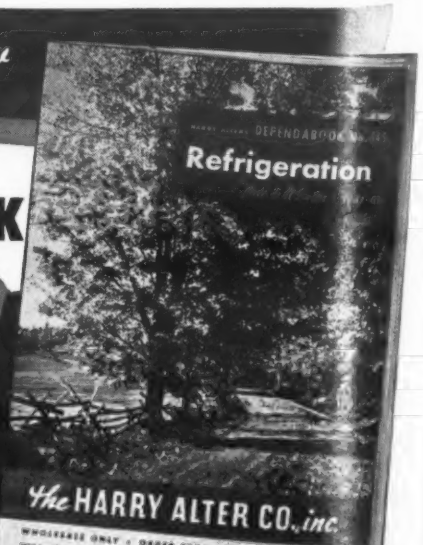
THE FRANCHISE WITH A FUTURE

Hotpoint
HOTPOINT INC. A GENERAL ELECTRIC AFFILIATE

5632 West Taylor Street, Chicago 44, Illinois

Get this New

FALL AND WINTER
DEPENDABOOK
NO. 145



It's brand new, it's America's finest source for
REFRIGERATION,
AIR CONDITIONING and
ELECTRIC MOTOR
Parts and Supplies

Your copy is waiting for you. Write on YOUR letterhead, today to

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the HARRY ALTER CO., inc.

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Chicago 16, Illinois
134 Lafayette Street
New York 13, New York

Effect of Home Freezer Use on Nation's Eating Habits, Cited by Butler

KANSAS CITY, Mo.—"People have to be sold on the idea of eating better and spending more of their income for food," asserted Karl Butler, director of research for the Cooperative G.L.F. in Ithaca, N. Y., speaking before the recent annual convention of the National Frozen Food Locker Association here.

In his discussion entitled "Ever Normal Refrigerator," Mr. Butler briefly traced the experiments being conducted at the Mother Zero locker plant in Ithaca, where the organization started out in March of 1946 with a program to "saturate the market with home freezers."

Since the beginning of that program, he said, 1,266 freezers have been sold or rented in an area which includes 23,000 population in the city of Ithaca, and a grand total of 40,000 for the county.

"We think there are at least 1,500 home freezers out in this area which has only 8,000 electric meters," declared Mr. Butler.

"We have found that 80% of all the people who had lockers at the Mother Zero plant when this home freezer program started are still renting lockers. And most of the 20% who gave up their lockers now say that they wish they hadn't," he continued.

Freezers of all sizes are in use in the Ithaca area, he said, including boxes of 2½, 3, 5, 6, 9, 10, 12, 18, 26, and 30 cu. ft. capacities.

Approximately one-third are in the city itself, another third in the immediate suburbs, and the remaining third on the farm.

A check of the Mother Zero plant patronage further reveals, he said, that 40% of the locker business comes from customers who have home freezers but do not, however, rent lockers.

Turning to his announced subject, Mr. Butler emphasized that although agricultural production has increased greatly in the past years, "we have never produced enough food to feed more than 50% of the people three square meals a day."

And despite the fact that food prices are up considerably, Mr. Butler said that they haven't increased as much as incomes. The latter are up 207% over 1934 figures while food prices have risen 190% since then, he stated.

Everyone should be interested in improving our food supplies, declared Mr. Butler—industry, because "there'd be much less industry if people didn't eat well; labor, because they know they can't do a good job without food."

Winters-Becker Named 4-Star Airtemp Dealer To Cover Miami Area

MIAMI, Fla.—The Winters-Becker Corp., 300 N.E. 71st St. this city, has been appointed Four Star dealer for the Airtemp Division, Chrysler Corp.

According to J. H. Winters, president of Winters-Becker Corp., his company will retail Chrysler Airtemp products covering air conditioning, heating, and refrigeration in the Greater Miami area and wholesale through associate dealers from the northern boundry of Indian River country to Key West.

Mr. Winters, until recently, was eastern divisional manager of Airtemp, with which he started in 1935. Associated with Mr. Winters as vice president is R. H. L. Becker, who had many years of experience with Frigidaire.

Archer To Address Detroit Group on Use of Ultra-Violet

DETROIT—Uses of ultra-violet in the food industry will be discussed by Hugh Archer of Edison Electric Institute before a meeting of the Refrigeration Contractors Association of Detroit on Thursday evening, Oct. 16, at Klees Cafeteria, 13534 Woodward Ave. here.

Sterilamp Sales & Service Co., Westinghouse distributor, and the Detroit Edison Co. are cooperating in presenting the program, which will also include a technicolor moving picture.

Correction:

No Voltages 'Safe' If Appliance Not Well Insulated, Thompson Talk Said

NEW YORK CITY—The headline over a recent NEWS article which read, "Higher Voltage Domestic Current Urged to Reduce Hazard in Using Appliances" was not correct, and a misconception that might prove extremely dangerous, states Gordon Thompson, chief engineer of Electrical Testing Laboratories, Inc., whose talk before a chapter of the American Society of Safety Engineers constituted the substance of the article.

Explains Mr. Thompson: "The drift of the address was simply this: High-voltage shocks sometimes do not result in death because the victim is thrown free of electric contact by the severe muscular contraction.

"Contact with low voltages of the order of 120 volts frequently sends a current through the victim which is in excess of the 'let-go' value, so that he is unable to disconnect himself from the source.

"The continued flow of current may then set the heart in fibrillation [uncoordinated contractions of individual heart muscles stopping the pumping action and circulation of blood], and no method has yet been devised for stopping fibrillation of the heart.

"One-hundred-twenty volts cannot be considered a 'safe' voltage. The International Harvester Co. came to the conclusion that anything above 11 volts was hazardous.

"Safety engineers do good work in enforcing rules and regulations and in devising safeguards and procedures that promote safety in the use of electrical appliances. But the provision of adequate insulation that will insure that an appliance cannot become the source of electric shock under any normal condition of use throughout a reasonable period of service life is the best guarantee of safety.

"By periodic measurements of leakage current to show the present condition of the insulation, it should be possible to keep electrical appliances in industry and in the home in a condition that will safeguard the users from electric shock," states Mr. Thompson.

LEAKAGE METER GLOWS

To test current leakage, a leakage meter is available, he adds. With this meter, a lamp will glow brightly if the leakage current is in the order of 50 milliamperes and will show some light down to about 15 milliamperes.

If the light does not glow, a switch on the meter may be pulled which will read leakage currents from 10 milliamperes down—in the "let-go" region. A second switch, operated last, will show the actual value of safe leakage current, if the leakage current is small, he further explained.

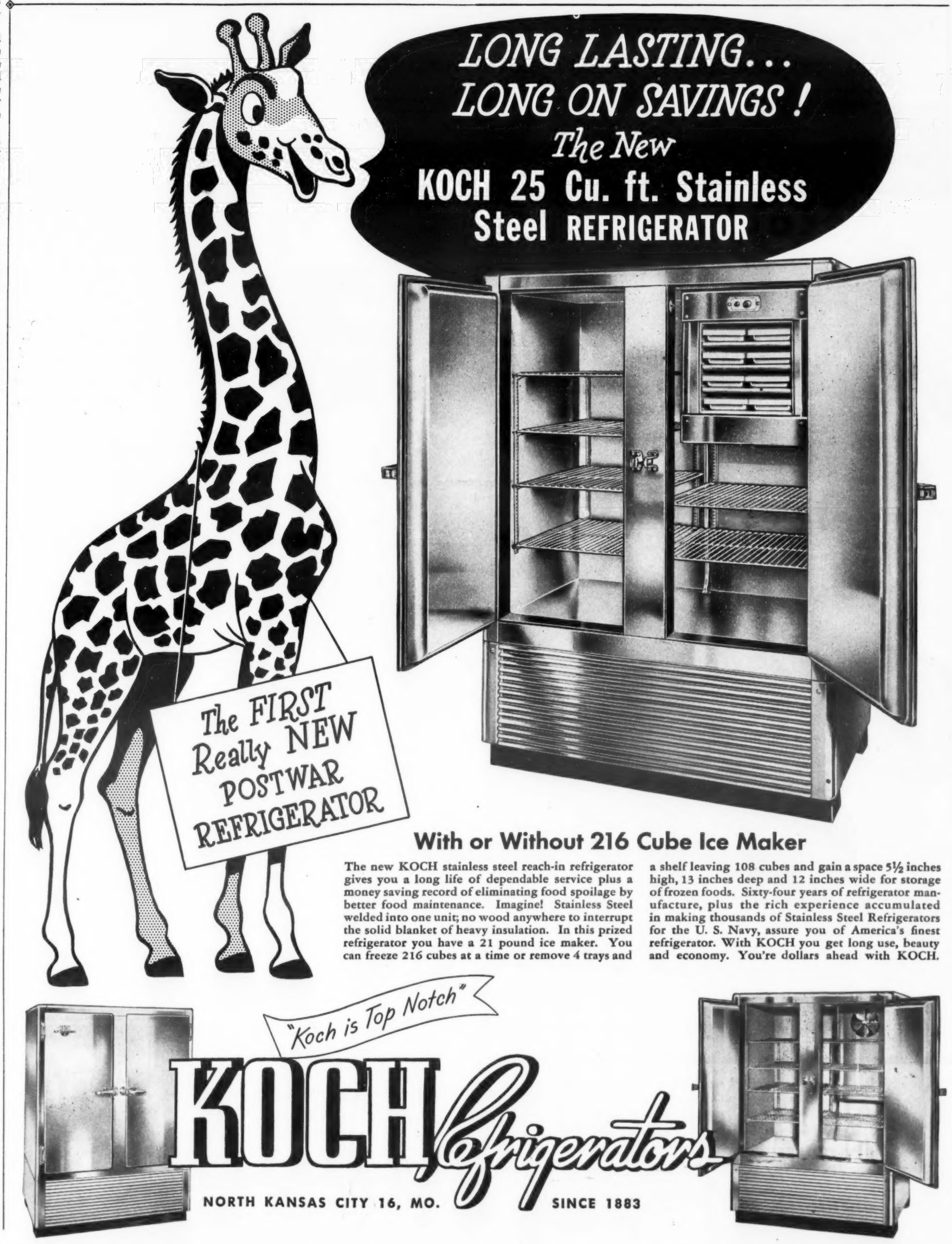
NARC October Meeting To Feature Open Discussion

CLEVELAND—The National Association of Refrigeration Contractors will hold a meeting Sunday, Oct. 26, in Chicago at the Hotel Stevens. All members as well as non-member refrigeration contractors anywhere near Chicago are invited to attend.

This meeting is called to fulfill NARC's constitutional requirements for the annual meeting to be held in October. So, it will be called, then shortly adjourned to next Jan. 26-29, to tie in with the big All-Industry Exposition in Cleveland.

After formal adjournment, the Chicago meeting will continue as a discussion affair on problems pertinent to refrigeration contractors. While it is thought that attendance will be largely from northern Indiana, northern Illinois, and southern Wisconsin, one member in Little Rock, Ark., has written that he will attend to present a local problem.

NARC's directors will attend this meeting; then hold their own quarterly meeting Monday, Oct. 27.


LONG LASTING...
LONG ON SAVINGS!
The New
KOCH 25 Cu. ft. Stainless
Steel REFRIGERATOR
The FIRST
Really NEW
POSTWAR
REFRIGERATOR
With or Without 216 Cube Ice Maker
The new KOCH stainless steel reach-in refrigerator gives you a long life of dependable service plus a money saving record of eliminating food spoilage by better food maintenance. Imagine! Stainless Steel welded into one unit; no wood anywhere to interrupt the solid blanket of heavy insulation. In this prized refrigerator you have a 21 pound ice maker. You can freeze 216 cubes at a time or remove 4 trays and a shelf leaving 108 cubes and gain a space 5½ inches high, 13 inches deep and 12 inches wide for storage of frozen foods. Sixty-four years of refrigerator manufacture, plus the rich experience accumulated in making thousands of Stainless Steel Refrigerators for the U. S. Navy, assure you of America's finest refrigerator. With KOCH you get long use, beauty and economy. You're dollars ahead with KOCH.
"Koch is Top Notch"
KOCH Refrigerators
NORTH KANSAS CITY 16, MO.
SINCE 1883

SUSPENDED GAS UNIT HEATERS

85—25—165 BTU capacity. Delivery within 3 or 4 days.

This is a union manufactured Product.

Some exclusive territories are available.

• • • • •

We also manufacture a combination heating and cooling unit, gas fired furnace and the NAT "Self-Contained" Air conditioning unit.

THE **NAT** CORPORATION

2710 McGee Trafficway Kansas City 8, Mo.

INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)

the creed. He lives in the country, and he maintains there a complete office for night-time and week-end work. Probably never in its 200 odd years has the poor old manse witnessed so many 2 a.m. work sessions. Jerry was asked recently what he wanted most in life, and his answer was typical—'Every other Sunday off.'

"In St. Louis, Archie Lee for 30 years has handled the Coca-Cola account for D'Arcy. He has poured himself into it—copy, letters for the client, speeches for the president. And he has literally spent more than half of his life on the road. Figure out for yourself the contact-executive job between St. Louis and Atlanta, not counting trips to New York and Wilmington.

"George W. Cecil, copy chief at N. W. Ayer and the man who has written the national copy for A.T.&T. for a generation or so, is another slave who keeps a light burning in his office window at night. Sure, he goes to Florida every winter, but the Ayer-dales say it's to see his wife. When he's in Philadelphia, there just isn't time.

"A New York tycoon put it differently, 'We have trained our wives to expect us home—when, as, and if we arrive!' Sure, these guys like their lamplit work. They enjoy being on the night shift. They wouldn't want to be anywhere else. But they do get ahead. They're working their way up.

" 'Bessie, call my wife, will you like a good girl, before you close the board? And tell her I'll be staying down. And tell Joe that if he's staying, we'll catch us a bite together. G'night. Thanks.' "

Nuts to 'The Night Watch'

By Barney Kingston

"Being a firm believer in the Rights of the Common Man and being fully convinced from bitter experience that the average boss will exploit his serfs at the drop of a Republican labor bill, I always get suspicious about articles that show the rewards of long hours and less pay. I always think the author has an axe to grind, and advantage to gain. I think he figures out how much he can save expenses by cutting everybody's salary but his own.

"If there is any field of endeavor that offers less security, less reward for the total effort consumed than the advertising agency business I would like to know it. If there is any one vocation that takes more out of a man and woman mentally and physically over a given period of time than the agency business, I've yet to meet it. If there is any one business that has a higher ulcer rate than the agency field, I've never heard of it.

"Can you think of any other business with as good daily chances of being fired, for reasons other than lack of efficiency?

"An agency copy writer is in the Advertising Major League. He is the guy directly responsible for the success of every account on the books. But how many copy writers are there who actually get paid in proportion to the business they help to bring to the firm? I'm not talking about the Hopkinses, the Weirs, the Bartons; just the 99½% majority of writers.

"I have recently met many owners of new agencies in Chicago, Detroit, Cleveland, and Cincinnati. These executives had two things in common: (1) plenty of money and (2) sense enough to know that their investment hinged on their ability to get the best copy writer possible at the lowest possible salary. They all threw the old bromide, 'Work hard for peanuts, and some day you'll be one of The Boys.'

"Have you ever noticed the abnormally high turnover of copy writers in agencies involves not cubs or sophomores, but juniors and seniors? Many agencies make no secret of the fact that they expect a 75% copy writer turnover in around three years. Look around you . . . how many writers are there in your own agency who have been there over three years?

Less 'Front,' More Dough

"If agency bosses would hold down expense accounts, quit installing plush-carpeted floors, mahogany-paneled walls, marble desk tops, personalized spotlite-beams, and other purely 'big front' window dressing—and use the money to pay respectable copy salaries in relation to the job done, there wouldn't be so many changes of address listed every week in the craft journals.

"About those long hours. There are very few cases where dire necessity makes such after-hours labor necessary. High-pressure executives seeking to milk every ounce of blood out of their hirelings are chiefly responsible for such sweat-shop activities; they always emphasize the rewards that will accrue for those who 'love' their labors more than their families.

"It's been my observation that the copy boys who do the best steady day-in-and-day-out jobs close up shop around 5 p.m. and scram for the day. They look better, last longer, do better work because they have learned how to organize a balanced life. They have time for work, play, and rest in sensible proportions.

"The writer of the 'Night Watch' sermon points to Claude Hopkins as a shining example of what happens when a guy will work nights and days, Saturdays and Sundays. What Mr. Converse doesn't apparently know is that Mr. Hopkins loved to do two things more than anything else in the world, two things that gave him his only pleasure: Write copy and drink Scotch straight; at the same time. Copy writing to most of us is just damnably hard work. Eight hours of it at any one stretch is plenty.

"What the advertising agency business needs today far more than less work and more pay is—a strong Belabor Union. Page the C.I.O."

Give and You'll Get

And here is "Dope's" two-cent's-worth:

Not long ago Ernest Bevin is said to have asked a British union official why his coal miners weren't producing more.

"When we voted the Labor Party in," replied the miners' agent, "you promised us more pay for less work. We're working less—where's the more pay?"

While reading B. Kingston's "Nuts to 'The Night Watch' " with growing sadness, resignation, and even despair, some of us were reminded of that anecdote, and also of a cartoon which appeared in a national weekly some years back. In this cartoon one bird (presumably male) was snuzzling against another (ostensibly female). Cutline:

"Gimme the worm first."

Kingston identifies himself as a common man, and it's for sure that he's acting awfully common. He personifies what's wrong with much of the world today. Like too many other misguided individuals, he wants the worm first. That is, he wants the dough before he earns it—and without extending himself.

Nowadays people seem to believe that if they work hard, work nights, or work overtime they're just making some overstuffed rich man richer. Not theirs the joy of achieving for its own sake. Not theirs the joy of doing a tough job superlatively well. To hell with striving for near-perfection. What they want is a cushy assignment, regular hours, and bovine "security."

This snide nose-thumbing attitude toward all the "copy book" rules for success might be forgiven in the case of an unimaginative assembly-line bolt wrencher or a 15-minutes-an-hour bricklayer. But when it crops up in the ranks of advertising copywriters, there's cause for alarm. By hypothesis, an advertising man is a creative fellow. He is supposed to be *different* and *distinguished* and *unusual.*

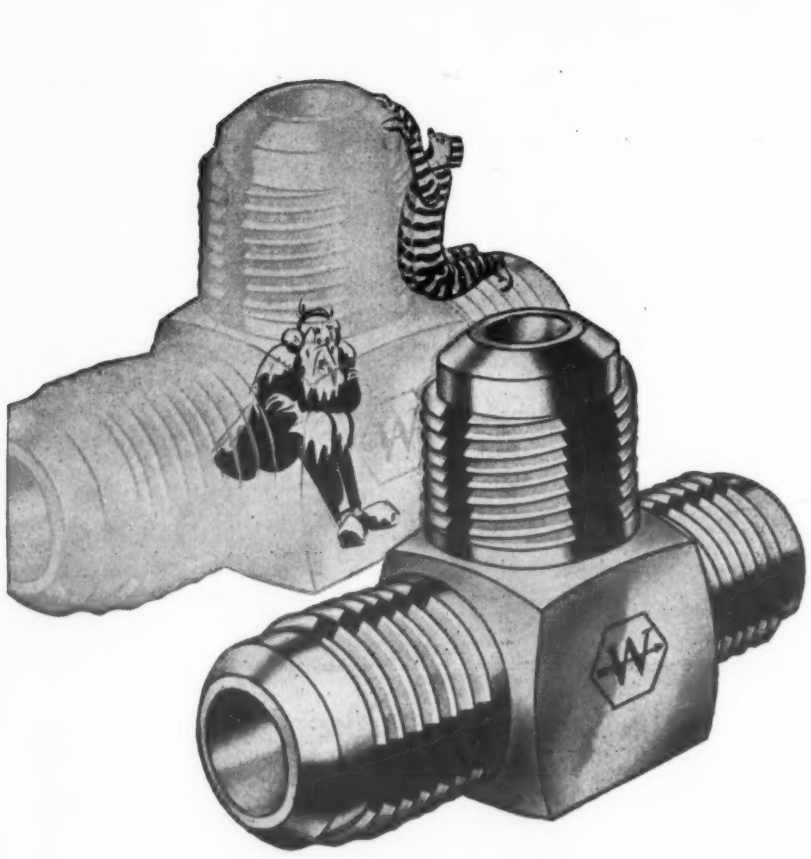
The creative man presumably belongs to a set-apart species which bears scant resemblance to the hive's humdrum drones. Like the poet, the inventor, the novelist, and the promoter, he is accepted as one of Nature's "sports." His idiosyncracies, like his innovations, are tolerated by his conservative compatriots because his daring self-sacrifice of time, energy, health, and pleasure often pay off in a big way to Society as a whole.

Unorthodox himself, beholden to no tribal shibboleths, the creative man who works far into the night in pursuit of an ideal occasionally makes two blades of grass push up where one grew before—or conjures up an improvement on grass itself. And in so doing, he carries plenty of nine-to-five plodders on his back.

He embodies the American Dream. He is (or was) the Spirit of Free Enterprise—the reincarnation of John Siddall, Horatio Alger, Babe Ruth, Abraham Lincoln, George Washington Carver, Joe Louis—Poor But Proud, Sink or Swim, Fight and Win . . . "the game's the thing"—"he profits most who serves best"—"they laughed when I sat down at the piano"—"of course I remember you, Mr. Addison Sims of Seattle."

(Continued on next page)

KEEP COLD IN AND TROUBLE OUT
with Weatherhead refrigeration fittings



ANY refrigeration installation is only as good as its poorest fitting. To keep trouble out, use the best you can buy . . . Weatherhead sharp thread, precision fittings, made to S.A.E refrigeration standards in a complete range of sizes and types.

The complete Weatherhead line includes long and short forged brass flare nuts, flare to pipe connectors, double end flared unions, sealing caps and plugs and every other type of fitting you need. Name it and we make it. Rely on Weatherhead precision for fast assembly work and long trouble-free field service.

Ask for your copy of the Weatherhead Refrigeration Catalog. It's especially useful for those engaged in service and installation work.

Look Ahead with

Weatherhead

THE WEATHERHEAD COMPANY, CLEVELAND 8, OHIO

CLEVELAND • NEW YORK • DETROIT • CHICAGO • LOS ANGELES

ATTENTION REFRIGERATION ENGINEERS!

We manufacture valves, dehydrators, strainers, manifold assemblies, accessories and fittings—an extensive line of original equipment for the refrigeration industry.

TRADED-IN
REFRIGERATORS...from 2 to 18 cu. ft.
FRIGIDAIRE • GENERAL ELECTRIC
HOTPOINT • KELVINATOR • NORGE • PHILCO
WESTINGHOUSE and OTHER FAMOUS BRANDS
ATTRACTIVELY PRICED for PROFITABLE RESALE
WRITE FOR LATEST PRICE LIST
METRO REFRIGERATOR CO. 44-3rd Ave., New York 3, N. Y.
A Continuous Reliable Source of Supply

INSIDE DOPE

by GEORGE F. TAUBENECK

(Continued from preceding page)

That's how it used to be, anyway. When the most powerful and high-living nation the world has ever seen was growing and expanding so enthusiastically, men-in-love-with-their-jobs like Claude Hopkins, Henry Ford, John Patterson, Thomas Edison, John McManus, "Boss" Kettering, and Bill Knudsen seldom looked at a clock. Nor did they fret over the passing thought that their overtime work might shove someone else into the upper income tax-brackets.

Pioneers Didn't Care

Because these pioneers didn't give a hoot how much they got or how long they worked, because they believed implicitly in *themselves* and their *dreams,* they helped all of us to lead easier, grander lives.

There were Giants in those days. . . .

Hopkins, McManus, and their tribe (may it increase!) didn't snarl: "Gimme the worm first." They buttoned up the job, and counted the cost and the profits (if any) afterward. They weren't concerned with leveling rates-of-pay, or standard working hours. As a matter of fact, they'd have yelled bloody murder had any union satrap attempted to regulate and regularize their habits (or scorn of Habit).

True, the businessmen they worked for and with may have invested good money in plush office furnishings and customer entertainment. Kingston is especially bitter about this. But why? After all, before a commuting Dagwood prototype copy-writer can be hired, someone has to sell a potential advertiser on the idea that advertising pays. And prospective buyers, being human, are impressed by window dressing. Even banks and churches—the most conservative of our institutions—provide rites, rituals, and handsome edifices to attract a clientele of paying customers.

If these investments in "atmosphere" hadn't been made, and if pioneers and promoters hadn't worked seventy hours a week to create new ideas and sell them, the current Generation of Vipers typified by ingrates like Kingston would be unable to enjoy its lazy, desultory, suburban routine of gardening, bridge-playing, golf, and sailing on the Sound. Bitter is the child who feels beholden to his own father.

The Sucker Wins

What's more, by insisting that any man who works nights, Sundays, and holidays is just a sucker for the dirty Capitalists, apologists-for-laziness like Kingston invert the Marxian canard that "religion is the opiate of the people." Just as religious faith can appease the soul, and provide peace and comfort for the devotee, so can recognition for a job well done preen the ego-feathers of these aspiring perfectionists who comprise the "Night Watch." In itself, acclaim is a luscious form of happiness.

An opportunistic used car dealer can bank scads of money. But what respect and admiration does he enjoy in his community or among his peers? To coin a phrase: Money isn't everything. Nor can it buy happiness. (There we go again, glorifying the bromidic old "copy book" maxims. But, by jiminy, they are true.)

In this period of labor shortage and talent scarcity, every man sets his own pace. Few Scrooges are able to maintain a sweatshop for long. And so it happens that most employes do no more than they think is absolutely necessary to "get by." That's the tragedy of our age. Apparently this "less work—more pay" disease is endemic all over the world. So we shouldn't be surprised that all the world is short of almost everything; and that millions are not only ill-housed and ill-clothed, but starving.

The simple notion that to provide more goods and services for more people all of us should work harder and longer is so obvious that it shouldn't require substantiation. Yet, it's "old hat" today.

Occasionally, however, a "character" does turn up who is *selfish,* in the original sense of that maligned word. He sees clearly through present-day "issues." He doesn't give a cussword how much money somebody else is likely to make out of his efforts if he can do big things himself, and for mankind as a whole. So he does more than he is asked to do—and he works far into the night while others are playing or vegetating or snoring. He treasures a grandiose dream, perhaps, or he wants to prove something. Anyway or whatever, he works until he is exhausted—day after day and night after night. Whether or not some kind patron will pay him for knocking himself out is a question which seldom enters his head. He sees something which needs doing, and he goes ahead and does it.

Creative Souls Our Hope

The United States of America—which is the last repository of individual freedom and opportunity in this sick old western civilization—may yet survive the threat of atomic obliteration. Why? Because in each new generation of free and inspired Americans a few derring-doers of this rare type seem to turn up, no matter what anybody may tell 'em about greedy bosses, insecurity, and the Rights of the Common Man. The last thing in the world they want to be is "common." They want to be different, daring, unusual, unfettered, uninhibited, and *creative.*

They pour themselves into their jobs and they work nights, because they have a vision. Possibly these pioneers, these imagineers, these whole-heart-and-soul concentrators on a job-to-be-done have been rewarded extravagantly in the past. So what? They raised the living standards of millions of lesser-endowed, less-energetic, less-eager-to-work brethren, didn't they? They brought new needs, new industries, and newly expanded employment into being, didn't they? Golly, then: They should be revered, adulated, and emulated. Their embryo counterparts should be encouraged and cherished.

But where are their likes today? We'll tell you: they're still incipient because their eager ambitions have been razzed and discouraged. Nowadays it isn't fashionable or "smart" to do more than you have to do to get by.

What America—and all the world—needs most of all is more bold men who care not how much they are paid by the hour or what hours they work, but who do care immensely about what they can create and produce.

There's joy-a-plenty in doing something which hasn't been done before. And the nth degree of happiness is experienced by those who are told that they have contributed more than their fair share to mankind's progress, comfort, and well-being.

No small-time belittler or carper who screams that he is being exploited will ever be as happy as is the damn-the-torpedoes-full-speed-ahead overtime worker who has originated and *sold* a new idea, product, or project successfully against entrenched opposition and normal inertia.

Incidentally: he who gives, gets.

see your "DETROIT" WHOLESALER for Expansion Valves Solenoid Valves Controls

"DETROIT"

2810

DETROIT LUBRICATOR COMPANY General Offices: 5900 TRUMBULL AVENUE DETROIT 8, MICHIGAN

Division of American Radiator & Standard Sanitary Corporation

Canadian Representatives: RAILWAY AND ENGINEERING SPECIALTIES LIMITED, MONTREAL, TORONTO, WINNIPEG

"Detroit" Heating and Refrigeration Controls • Engine Safety Controls • Float Valves and Oil Burner Accessories

"Detroit" Expansion Valves and Refrigeration Accessories • Stationary and Locomotive Lubricators

"DETROIT"

EXPORT DEPARTMENT—Box 218, Ridgefield, New Jersey

WARM AIR Boosters only $7.70

8-inch size, complete with motor. All sizes available for prompt delivery. Write today.

STANDARD ELECTRIC Manufacturing Co., Inc.

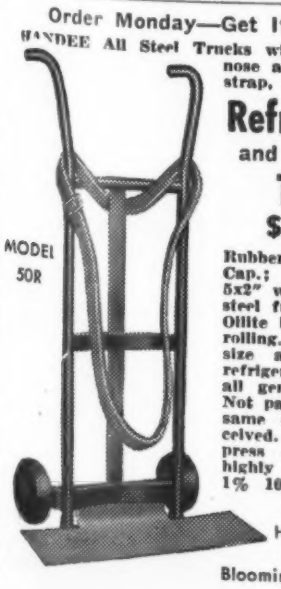
West Berlin, New Jersey

Order Monday—Get It Friday

HANDEE All Steel Trucks with extra wide nose and 13 ft. web strap, for use as

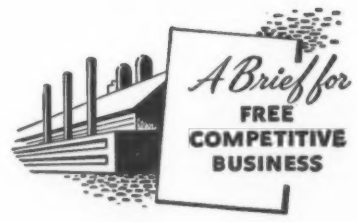
Refrigerator and Appliance Truck

$19.95



Rubber Tires; 600 lb. Cap.; Height 48"; 5x2" wheels; 1" tube steel frame; Chrysler Oilite bearings; Easy rolling. For medium size appliances and refrigerators and for all general purposes. Not padded. Shipped same day order received. Return express collect if not highly useful to you. 1% 10 days.

Order from HANDEES CO. Dept. AC-10 Bloomington, Illinois



In America, it is the inalienable right of every man to start in business for himself. Further, it is his guaranteed right to run that business according to his own concepts, principles and policies. Fortunately . . . and almost invariably . . . those policies that result in the most good for the greatest number of people result also in success for the enterprise. It's a condition of balance found only under a free competitive system of business.

Briefly, Tecumseh Products Company has pledged itself: (1) To take whatever steps are deemed practical and possible to improve the product, increase production, and reduce costs and prices. (2) To sell only to manufacturers of complete refrigeration equipment and . . . to sell them direct.

Barring completely unforeseen changes within the industry or within the economy itself, these policies will continue to direct the operation of . . .

Chieftain

TECUMSEH PRODUCTS COMPANY

Tecumseh, Michigan

J. G. Moravec To Manage Penn Electric Branch

MOLINE, Ill.—James G. Moravec has been appointed manager of the Moline, Ill. branch office for Penn Electric Switch Co. to succeed Howard C. Shilling, resigned, according to R. H. Luscombe, sales manager.

J. G. Moravec

Mr. Moravec was released from Army active duty in July, 1947, with the rank of lieutenant colonel after serving since January, 1942. Before being called to military service, Mr. Moravec was manager of the Moline branch for approximately five years.

A graduate engineer, he has had a wide and varied experience in the application and sales of automatic controls.

James Felts Joins Coldew Sales Staff

SOUTH GATE, Calif. — Coldew Corp., manufacturer of commercial refrigeration equipment here, has announced the appointment of James Felts to its sales staff.

Mr. Felts was formerly associated with Frigidaire and Norge in sales positions. Later he joined the staff of E. B. Garrett Co., Eldorado, Ark. as general manager.

Air Conditioner Advertising Results In $4,000 Gross Sales for One Day

WASHINGTON, D. C. — A full-page advertisement carried in a Washington daily paper helped the Lansburgh's home appliance store sell 10 air conditioning units—grossing $4,000—in one day.

The advertisement was part of a two-way sales campaign which began in June, 1947, and which, in its three months of operation, brought 200 mail inquiries and resulted in 40 sales.

Lansburgh's, one of the capitol's oldest and largest department stores, in 1946 opened a home appliance store. This outlet, determining on a policy of selling only top-quality name merchandising, contacted leading national manufacturers to select a line of appliances which they could sell with pride to the already-established Lansburgh clientele.

Early in 1947 they were able to obtain the exclusive franchise for department store merchandising in the Washington area of the Carrier line of air conditioning equipment; and to introduce their new merchandise launched a newspaper advertisement and floor and window display sales campaign.

The newspaper campaign, launched first, consisted of a full-page spread announcing their new Carrier air conditioning equipment, and included on the advertisement a coupon reading "Please send me the free booklet telling about central air conditioning. No obligation, of course." Approximately 200 of the coupons were returned, and these supplied a good list of prospects which are still being contacted. The management of Lansburgh's were especially well pleased with the geographical spread of the inquiries, coming as they did from New York to Florida.

Following the initial appearance of this insertion, numerous telephone and personal requests for further information were also received, and from these various sources, the first day's sales showed 10 units sold.

The newspaper campaign was followed up with three later advertisements, all parts of a general advertisement for the Lansburgh merchandise.

The second part of the campaign was a combined window and floor display. A whole window on Washington's well-traveled Seventh Street was dressed into a three-room set-up. One room was designed as a nursery, one as an office, and the third as a living room. In each room, Carrier equipment was placed most advantageously, and small placards explained its advantages.

On the sales floor, a window model was displayed in use, and also a console model.

The Lansburgh management feels that their sales campaign brought unusually successful results, and that the new line of air conditioning equipment has become well established in their customer's consciousness. They plan to carry occasional mention of it in future advertisements, and to continue their floor display.

Kitchen Cooling Boosts Employe Morale

Above is one of the three Airtemp "packaged" air conditioning units installed in the kitchen of the Park Central's Royal Room restaurant to improve employe morale and efficiency. Installation was by Broadway Maintenance Corp., Chrysler Airtemp dealer

* * *

City Employes Consider Air Conditioning A Must

ST. PETERSBURG, Fla.—It was back to horse-and-buggy days at city hall when the new air conditioning system recently became inoperative, and city employes who had become accustomed to the cool office atmosphere through the summer, suddenly were perspiring and fidgety.

"I worked without air conditioning nearly 20 years," commented one, "but already I've got it on my list of necessities. I didn't realize how good it was until it went off."

City building department men with outside mechanics were busy trying to remedy the difficulty, which seemed to be caused by oil in the Diesel generator units working from the crankcase into the system.

3-Story Air Conditioned Miami Beach Hotel Built for Sam Lachman

MIAMI BEACH, Fla. — Construction will begin shortly on one of the most modern three-story air conditioned hotel buildings for Sam Lachman. The structure will be built on 16th St. and the ocean.

Guests will enter a spacious structural glass and marble lobby which will look out upon the ocean past an intriguing mirrored writing room and coffee shop. An outside dining terrace covered by a specially designed aluminum awning will look out over the beach and the ocean.

Each of its 72 spacious hotel rooms complete with ample closet space and stylized bath rooms will be made more comfortable with the latest type air conditioning.

Airtemp Units Installed In Park Central Hotel

NEW YORK CITY—Park Central hotel here has installed three Chrysler Airtemp self-contained air conditioning units in the kitchen of its Royal Room restaurant for the purpose of improving employe morale.

The units were installed by Broadway Maintenance Corp., Chrysler Airtemp Four-Star dealer here, and, according to the hotel's assistant general manager, E. M. Colby, "the temperature and humidity in the kitchen were improved sufficiently to make the employes feel comfortable and to increase their efficiency."

Evans Products Appoints Faurie General Sales Mgr. Of Heating, Appliance Div.

DETROIT — Georges Faurie, for the last three years advertising, merchandising, and sales promotion manager of the Home Radio Division of Westinghouse Electric Corp., has been appointed general sales manager for the heating and appliance division of Evans Products Co., R. B. Evans, vice president in charge of the division, announced.

Mr. Faurie entered the merchandising field in 1927, when he joined Brunswick-Balke-Collender Co. He left that concern in 1932 to join the Delco Appliance Division of General Motors in Rochester as manager of sales promotion and education.

In 1934, he was transferred to GM's Frigidaire Division. He returned to Delco in Rochester when the Delco-Frigidaire Division was dissolved. Later, he joined the Westinghouse division in Sunbury, Pa.

GOVERNAIR

PIONEERS IN THE MANUFACTURE OF COMPLETELY PACKAGED AIR-CONDITIONERS*

Manufacturers of:
- Evaporative Condensers
- Air Handling Units for Heating and Cooling
- Unit Coolers for Refrigeration
- Blast Coils for Heating and Cooling

EXCELLENT DELIVERY
Recent increases in our production facilities enable us to make rapid delivery on most of our products.

FOR FURTHER INFORMATION CONTACT YOUR GOVERNAIR DISTRIBUTOR OR WHOLESALER, OR WRITE DIRECT.

GOVERNAIR CORPORATION
513 N. BLACKWELDER OKLAHOMA CITY, OKLA.
P. O. BOX 1654

* with evaporative condensers, U. S. Patent No. 2,297,928.

MULTIPLEX
Refrigeration Condensing Units

NOW AVAILABLE
Complete with motors in
¼, ⅓, ½, and ¾ HP sizes
Inquiries From Jobbers Invited
Multiplex Manufacturing Co., Berwick, Penna.

As WAA Transferred Ex-Navy Plant to Carrier

Carrier President Cloud Wampler (left) prepares to sign papers transferring the huge former U. S. Navy war plant at Syracuse to Carrier Corp. Looking on is Col. John E. Millea, a WAA zone administrator.

* * *

Carrier Will Move Heavy Output to Newly Acquired Factory In Syracuse

SYRACUSE, N. Y.—Cloud Wampler, president of Carrier Corp., announced last week the acquisition of title to the huge industrial plant at Syracuse that was built by the United States Navy in 1942.

The purchase was made from War Assets Administration as a part of Carrier's $12,000,000 expansion program for the manufacture of air conditioning and refrigeration equipment.

The principal structure is a single floor, high-bay building, which covers more than thirteen acres under a single roof. This will provide Carrier with an additional 60,000 sq. ft. of production space.

"We believe that we have acquired one of the finest industrial properties in the country, especially for the manufacture of heavy machinery," Mr. Wampler said. "Carrier now has the most extensive production facilities in the world devoted exclusively to the manufacture of air conditioning and refrigeration equipment," he declared.

The land and buildings immediately adjacent to those purchased by Carrier Corp. have been acquired from War Assets Administration by Syracuse university. On this "industrial campus" will be located the engineering college of the university and also the university's Institute of Industrial Research.

Mr. Wampler stated that the bulk of Carrier's heavy production will be moved to the new plant. The older Syracuse property of the corporation will be used chiefly for expanded light manufacturing purposes.

Located on Carrier's Thompson Rd. property, in addition to the principal structure, are a power house, a million gallon water reservoir, huge standby oil and storage tanks, a large cafeteria, office building, infirmary, garage, and in addition parking space for some 3,000 automobiles.

The principal building is 924 ft. long by 621 ft. wide, and its 10 huge aisles are served by overhead cranes. All aisles have an overhead clearance of 41 ft. and the entire building is flooded with daylight type lighting.

Mercury Furnace Given Public Showing In Omaha

OMAHA, Neb. — A demonstration of his revolutionary mercury furnace was given at the Omaha Public Power District parking lot Sept. 30 by Dr. Ralph Lucas of Ackley, Iowa, and among the watchers were a number of physicists, the Omaha Chamber of Commerce Industrial committee, and local heating equipment and air conditioning suppliers and retailers. It was the first public showing Dr. Lucas has held.

Although he holds a patent for breaking the mercury atom, Dr. Lucas stated that his is no atomic furnace. His heating method lies in displacing the 80 electrons around the mercury atom, and the heat comes from friction as they speed at 25,000 miles per second.

The Lucas furnace derives its heating effect from 10 pounds of mercury, which is subjected to high voltage to displace the electrons. The principle is similar to that in which the sun gives off electrons to heat the earth, the inventor said.

Air Conditioning Boosts Druggist's Summer Toiletry Sales

LINCOLN, Neb.—Promotion of the new Carrier air conditioning system during the past summer at the Self-Service Drug Co., 1323 "O" St., resulted in a definite increase in sales volume, says Ron Allen, proprietor. The air conditioning was publicized as a pleasant solution to hot weather shopping, and typical advertising copy read:

"You may shop during these warm days in this modern air-conditioned store in comfort and take advantage of the consistent everyday low prices . . ."

Summer toiletries responded especially well to a tie-in with air conditioning, Mr. Allen said. Such items as bath crystals, deodorants, dusting powder, cologne, sun tan preparations and leg make-up, jumped 50% in sales volume when the air conditioning system was put into operation. Vacation needs and baby foods also rose sharply in sales volume.

Trane Reports Net Profit of $1,402,136 for 8 Months

LA CROSSE, Wis.—A net profit of $1,402,136 after taxes and all charges in the eight months ended Aug. 31 was reported by The Trane Co. here.

The profit is equal to $4.67 a share on 300,000 shares. This compares with a net profit of $446,385, or $1.46 a share, for the corresponding period of last year.

Sales for this year's period amounted to $12,242,938. The total for the same span of 1946 was $6,990,383.

Raytheon Profits Rise, Sales Drop Off, Fiscal Report Shows

WALTHAM, Mass.—Raytheon Mfg. Co. here has reported a net profit of $920,235 or 47 cents per share for the fiscal year ended May 31. Last year the company reported a net loss of $333,102.

Sales for the fiscal year were reported at $66,414,310 compared to $105,886,829 for the previous year.

DEALERS WANTED

BEV-KOLD WET-DRY ELECTRIC BEVERAGE COOLER

Model B 180

59½" long, 28⅜" wide, 34" high

Bottle Capacity

180 12 oz. upright, 220 12 oz. corded

THE BEVCO COMPANY

BEVCO BEV-MAID

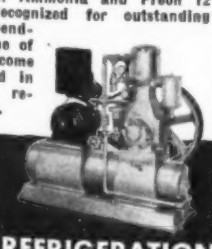
1512 PINE ST., ST. LOUIS 3, MO.

Lipman

AUTOMATIC REFRIGERATION

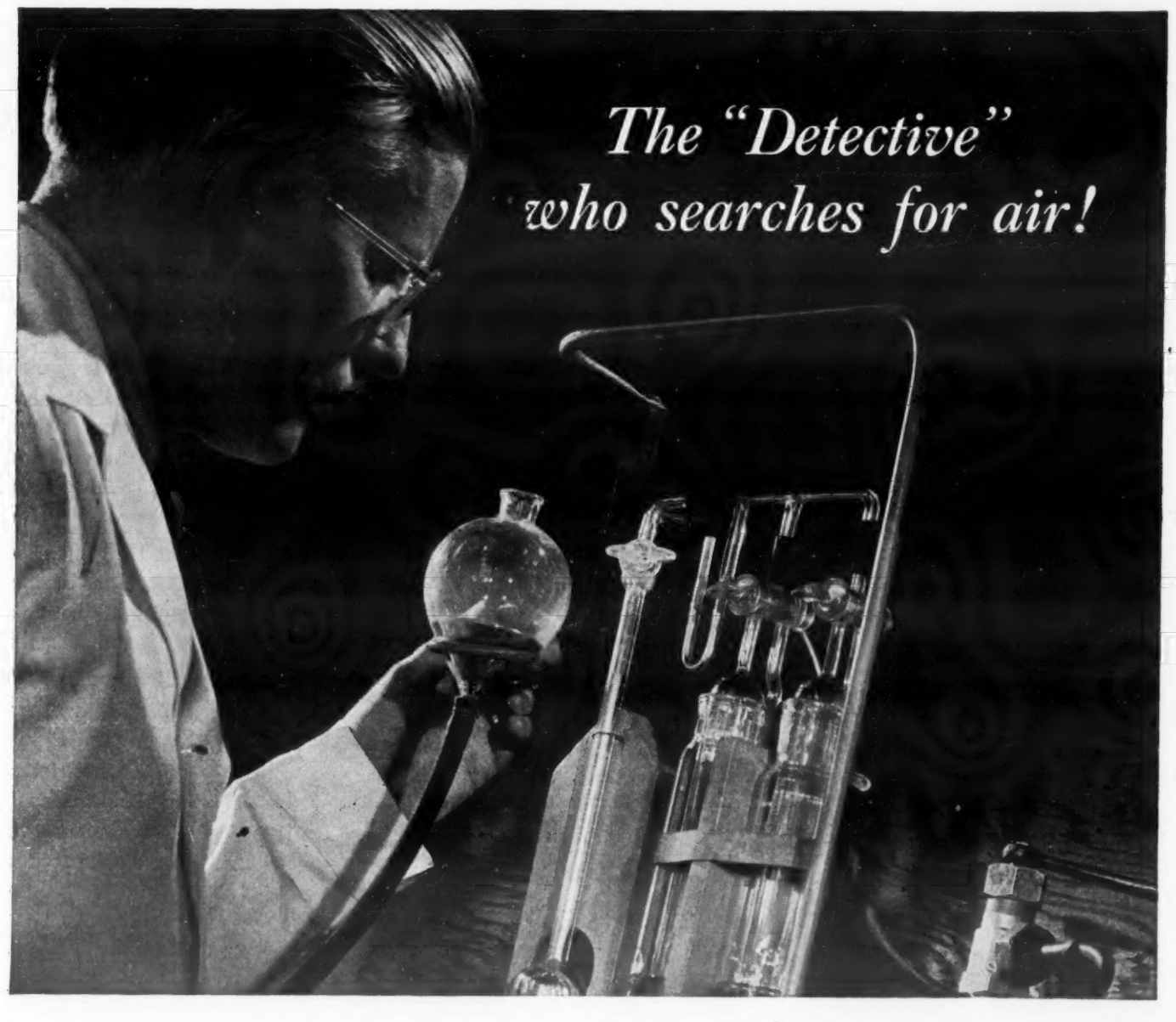
For all types of refrigeration installations. Available in sizes ranging from ¼ thru 40 H.P.

LIPMAN units are available for use with Methyl Chloride, Ammonia and Freon 12 refrigerants. Recognized for outstanding economy and dependability, the name of LIPMAN has become the "buy" word in the commercial refrigeration field.



GENERAL REFRIGERATION DIVISION

YATES-AMERICAN MACHINE CO., Beloit, Wisconsin



To protect air conditioning and refrigerating systems . . . prolong their life and usefulness . . . this laboratory "detective" guards the purity of "Freon" safe refrigerants.

He's on the trail of non-condensable gases (air) of which the tolerance permitted in "Freon-12" is less than 2%.

The exceptional purity of "Freon" refrigerants—controlled by many laboratory tests such as this one—helps maintain the operating efficiency of air conditioning and refrigerating systems. It reduces the risk of corroding . . . forestalls the need for frequent overhauls and aids in keeping maintenance costs low.

"Freon" refrigerants are free from acids . . . other harmful impurities . . . are now amazingly dry. For example, "Freon-12" dichlorodifluoromethane refrigerant contains *less than 10 parts of moisture per million parts of "Freon"!* In addition, these refrigerants are harmless . . . non-toxic, non-flammable, non-explosive . . . odorless and stainless.

For compact, safe, long-lasting refrigerating systems, specify "Freon" safe refrigerants. There's a "Freon" refrigerant for every job and every temperature requirement. Kinetic Chemicals, Inc., Tenth and Market Streets, Wilmington 98, Delaware.

OUTSTANDING FEATURES OF "FREON" SAFE REFRIGERANTS

1. Freedom from moisture . . . now less than 10 parts per million.
2. Narrow boiling point range—confined within limits of 1/2°C.
3. Less than 2% of air in vapor phase.
4. Freedom from acids. There are none in "Freon."
5. Freedom from high and low boiling products.
6. Non-toxic . . . non-flammable . . . non-explosive.

KINETIC

FREON

REG. U. S. PAT. OFF.

safe refrigerants

"FREON" IS KINETIC'S REGISTERED TRADE-MARK FOR ITS FLUORINATED HYDROCARBON REFRIGERANTS AND PROPELLENTS

They'll Do It Every Time . . . . By Jimmy Hatlo

NOBODY'S PRIVATE BUSINESS IS SAFE FROM THE PRYING EYE OF EAGLEBEAK, THE SELF-APPOINTED OFFICE GUMSHOE
OH! FROM THE FINANCE CO., EH? I COULDN'T HELP NOTICING THE LETTERHEAD--- I THOUGHT IT WAS THAT HOME OFFICE MEMO YOU WERE READING---PARDON ME!
BUT LET A CIRCULAR LETTER OF HIS OWN GO SLIGHTLY ASTRAY, AND "MURDER" HE YELLS---
Thanx to CARL A. GUSTAFSON, BEL KNAP ROAD, FRAMINGHAM, MASS.
OPENED BY MISTAKE?! A LIKELY STORY! IT MAKES ME SO HOPPING MAD! OFFICE SPIES!! THAT'S WHAT WE GOT AROUND HERE!
JIMMY HATLO
5-16
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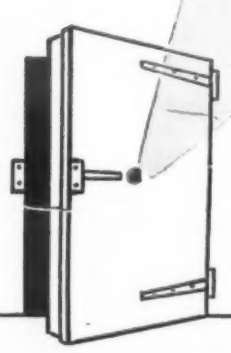
It's Time To SELL Again!

on cold storage doors, too, this seal means

INSULATED WITH SANTOCEL

PRODUCT OF MONSANTO CHEMICAL CO.

"THE WORLD'S MOST EFFICIENT INSULATION"



SANTOCEL SAVES SPACE

When you see the Santocel Seal on refrigerating equipment for home or industry, you know that it is insulated with the finest of all insulating materials.

Unprecedented insulating efficiency of Santocel, Monsanto's unique silica aerogel, has special advantages for manufacturers of cold storage doors. It makes possible . . . (1) less bulk . . . (2) light weight . . . (3) easier handling . . . (4) simplified construction . . . (5) longer life . . . (6) reduced costs.

For all insulated equipment, Santocel means maximum storage capacity with minimum overall dimensions.

If you are interested in better refrigeration equipment, you should know more about Santocel. Get complete information . . . technical data . . . from: MONSANTO CHEMICAL COMPANY, Merrimac Division, Boston 49, Mass. Santocel: Reg. U. S. Pat. Off.

MONSANTO CHEMICALS — PLASTICS

SERVING INDUSTRY . . . WHICH SERVES MANKIND

AN INTERNATIONAL INSTITUTION • SUBSCRIBERS ALL OVER THE WORLD

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AIR CONDITIONING AND REFRIGERATION News

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F. M. COCKRELL, *Founder*

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What Small Business Needs Most of All

ALBERT BRADLEY, the awesomely brainy executive vice president of General Motors, believes that general revisions of the nation's tax laws and regulations should be a major project for 1948. Why? So that the accumulation of venture capital again will be encouraged, thus providing means for the formation and growth of small business.

Does this concern over the plight of small business sound odd, coming from a top man in America's biggest corporation? Please read further.

Mr. Bradley insists that "we have stepped up our tax rates to the point where they threaten to smother new and small enterprises once the abnormal conditions of this period of war-created shortages disappear." Emphasizing that the "little" business man is the real underpinning of our free economy, he warns that if small business should sicken and wither as taxes drain off venture capital, the pattern of industry will become frozen and static. In other words, America will retrogress instead of progress. If we don't go forward, we backslide. Our country is so dynamic that it can't sit still. With us, it's either feast or famine.

The small business, the new business, and the idea that may become a business depend largely on the risk capital available to daring individuals. And so, because present tax laws do not permit our nation's ambitious, self-confident, imaginative individuals to save enough money so that they can plunge ahead toward converting their visions into actualities, Mr. Bradley proposes the following revisions of our tax laws:

1. Restrictions as to the carrying forward or back of losses should be liberalized so that business, particularly new enterprise, can more nearly balance its prosperous years against its lean ones. (In other words, tax accounting shouldn't be on an annual basis. Rather, taxes should be paid on earnings and losses averaged over a period of several years.)

2. Liberalization of depreciation allowances would also help small business—particularly the business that is just getting started and has most of its capital tied up in new facilities and tools, and in the cultivation of distributing outlets.

3. The double taxation of corporation income ought to be ended without delay. It's unconstitutional and unfair. To tax such income first at the corporate level and again at the individual level when it is received as dividends is manifestly unjust and harmful.

4. Corporation taxes themselves should be reduced. This will help to make investment in new enterprises more attractive to those who have saved money—thus assisting many new concerns to get started. It will also enable small businesses more easily to finance themselves. The reinvestment of profits is an important factor in enabling small business to grow larger and to serve more people.

Most important reform of all, according to Mr. Bradley, is the lowering of the surtax rates on individual incomes to permit the accumulation of "risk money." This will assure the availability to small businesses and to new businesses of the capital they so badly need. When new "risk money" can be accumulated, it will stimulate the regenerative processes of our economy. (That is: savers can "back" dreamers—men with an idea—once again.)

Mr. Bradley believes that big business leans heavily on small business, and could hardly get along without it. And he is right.

Both types of enterprise are equally necessary components of our economy. And if tax laws prevent new businesses from starting, or check the growth of small concerns, the whole she-bang will gradually throttle down to a dead stall.

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.. IN REFRIGERANT CONTROL ACCURACY

New A-P Model 212 Expansion Valve. Adjustable superheat. Capacities ½ ton, 1-ton, and 1½ tons Freon. Limiting pressures: Freon, 15, 40 and 55 lbs.; Methyl, 10 and 30 lbs.

Cross Section showing Pressure Limiting diaphragm unit, single needle pin and single spring. Simple, foolproof design.

New A-P Model 211 similar to Model 212 but non-adjustable, designed especially for original equipment.

New DEPENDABLE Models 211 and 212 VALVES

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Amazingly simple in construction, Models 211 and 212 use only one spring and one needle pin. A unique and entirely new diaphragm unit limits the operating suction pressure to a predetermined setting. Should the pressure build up to a point approaching overload this diaphragm actuates the needle pin, allowing the valve needle to move towards the closed position, until the overload condition has passed. Then the valve operates in the normal manner to control superheat through the thermostatic bulb and sensitive large-area diaphragm. Liquid charged, Models 211 and 212 retain all the proven superiorities of standard A-P Thermostatic Expansion Valves. They may be mounted in any position or ambient temperature.

Model 211 is non-adjustable. Model 212 is adjustable, and you may use it in place of any standard thermostatic expansion valve of similar capacity. It should be installed on any system offering the remotest possibility of overload, where it will save much service and repair expense and even motor break-down. Types are available to limit pressures to 15, 40 and 55 lbs. Freon 12; 10 and 30 lbs. Methyl. Capacities: ½, 1, and 1½ tons Freon; ½, 1, and 3 tons Methyl

See your Refrigeration Equipment Wholesaler for complete details on these valuable new A-P Valves, or write for bulletins.

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Quick Test of Expansion Valves, Controls Improves Service Operations (Part 1)

PITTSBURGH—"For a number of years service engineers in the shop and in the field have needed an instrument that would quickly and accurately check the performance of thermostatic expansion valves and thermostatic controls," declares E. C. Williams, head of Airserco Mfg. Co. here.

"In the examination of thermostatic expansion valves, the old practice of using an ice water bath on the bulb of the valve was inconvenient, slow, and not too exact. It was an operation that could only be handled in the shop, causing considerable delay at critical times."

It was to meet this need, says Mr. Williams, that Airserco developed a new valve analyzer system which can be used on the job or in the shop.

"The valve analyzer kit is very compact; it may quickly be set up out of the serviceman's tool box, and is very accurate," he asserts.

"Superheat settings of valves can be checked and reset if necessary. Leaking valve seats can be detected, and the condition of the power elements tested. The analyzer kit also permits a thermostatic expansion valve to be adjusted for a change in refrigerant gases," he adds.

Besides taking the "guesswork" out of adjusting and resetting thermostatic expansion valves, the new analyzer also permits the service engineer to pre-set the automatic type expansion valve before installing on the job.

"In addition to this time-saving operation, all standard makes of thermostatic temperature controls may be checked for performance without removing the thermostat from the refrigerator cabinet," points out Mr. Williams.

"When a service engineer is analyzing the difficulties present in the refrigeration system, many of the difficulties often seem to point to a failure in the valve. He should not condemn the thermostatic expansion valve without first examining its performance."

Because it was previously difficult to determine the true condition of the thermostatic valve, general practice has been to replace the suspected valve. Often, later examination of the valve by its manufacturer revealed that the valve was satisfactory, perhaps being only out of adjustment.

"With the use of the valve analyzer kit, however, the true condition of a valve can be readily determined," Mr. Williams declares. "This knowledge is most important because it permits the service engineer to safeguard his reputation.

"He can, for example, leave a satisfactory expansion valve in the system, and recommend the installation of a heavy-duty dehydrator. Or he can check the performance of the low pressure controls or the valve plates in the compressor.

"There have been many instances when thermostatic expansion valves have been changed because they were not operating satisfactorily because of 'sticking' due to moisture, and additional dehydrator capacity was not placed in the system to counteract this condition," points out Mr. Williams.

To test a thermostatic expansion valve three essential elements must be provided:

(1) Clean, dry pressure (refrigerant vapor).

(2) Measured testing flow.

(3) Known bulb temperature.

Although compact, the complete Airserco valve analyzer system includes a number of items. These are the thermostatic control tester, valve analyzer kit (comprising adaptor fittings, a pressure gauge, and a second pressure gauge for determining superheat), a "Liqui-Vap" valve which fits into the refrigerant cylinder used in the test, a tank holder, and a valve key.

The thermostatic control tester, used as part of the valve analyzer, consists of a small chamber to which liquid refrigerant is admitted, a receptacle for the thermostat bulb, and a thermometer. Evaporation of refrigerant in the chamber cools the bulb in the receptacle while the thermometer gives an accurate reading of the temperature of the bulb.

The Liqui-Vap valve which fits on the refrigerant cylinder is designed to permit liquid refrigerant and/or gaseous refrigerant to be drawn off the cylinder. Separate valve stems are provided for both the liquid and gas outlets.

To test a thermostatic expansion valve, a small service cylinder ("Freon-12" or methyl chloride) fitted with a Liqui-Vap valve is inverted and clamped in the tank holder. The latter is so designed as to be quickly mounted on a work bench or a tool box.

How Kit Is Used To Test Expansion Valves

Testing a valve with the Airserco valve analyzer kit.

The thermostatic control tester is then attached to the liquid outlet of the Liqui-Vap valve by means of the quick-connector fitting.

Next, attach the pressure gauge to the vapor side of the outlet. The presure gauge indicates from 0 to 150 lbs. pressure. Most recent model of this gauge is marked in green to show more clearly the best working range.

The inlet side of the thermostatic expansion is connected directly to the outlet on the pressure gauge, and on the outlet side of the valve is attached a second gauge calibrated at 10° superheat. This gauge is also calibrated in lbs. per sq. in., and the 10° F. superheat settings for "Freon-12," methyl chloride, and sulphur dioxide are color-coded for simplicity. A small orifice valve is also an integral part of the manifold.

Feeler bulb of the thermostatic expansion valve is then inserted in the bulb receptacle of the thermo-tester. This receptacle is designed to take a ⅜ in. dia. bulb, but an adaptor supplied with the tester accommodates ⅛ and 5/16 in. bulbs also.

It is important that the refrigerant test pressure used throughout the test be 70 lbs. or more. If the pressure as indicated on the pressure gauge when the Liqui-Vap outlet is opened is below this desired working range, the cylinder may be heated with hot water or a torch.

"To perform a series of seven tests on an expansion valve the only operation required is the opening and closing the valves on the instruments," states Mr. Williams.

"The only caution that need be observed in setting valve adjustments is that all adjustments and tests be made as the temperature reading continues upward on the thermometer provided in the thermo-tester. The adjustments are made only at 32° F.; and all other readings above or below 32° should be disregarded."

The first step in examining a thermostatic expansion valve should be to check for leaks in the body bellows.

First admit refrigerant gas to the expansion valve by opening the stem of the Liqui-Vap valve. Then loosen the packing nut and check the exterior of the valve with a Halide leak detector.

With a 75-lb. pressure, the valve is subjected to several times the pressure encountered in actual service, and leaks should show up readily.

To determine the present setting of the valve being tested, the liquid side of the Liqui-Vap valve should be open momentarily to reduce the temperature of the thermotester to approximately 25° F. When the thermometer reads about 25° F. on its upward rise, open the orifice valve on the gauge attached to the outlet side of the expansion valve.

Observe the gauge reading of the outlet gauge at the moment the thermometer reading of the tester has increased to 32°. The reading obtained is in lbs. pressure. By referring to the accompanying superheat table, this pressure reading readily indicates the superheat setting of the valve.

If the superheat setting is not the one desired, it can be adjusted and the valve quickly tested again until the setting is correct. The 10° superheat setting is generally regarded as the factory standard for most thermostatic expansion valves.

This gauge is specially marked to indicate the 10° superheat settings for "Freon-12," methyl chloride, and sulphur dioxide, so it is not necessary to refer to the chart to arrive at these settings for these three refrigerants.

To check the expansion valve for leaky valve seat or needle, proceed in the same manner as outlined for determining superheat settings. Bring the temperature of the thermotester down to 25°, and when the temperature rises to 32°, close the orifice valve on the pressure gauge. If the the pressure increases rapidly, the valve seat or needle is leaking or is not holding.

(To Be Continued)

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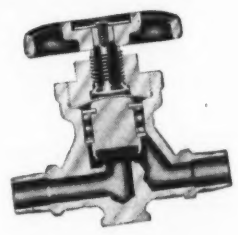
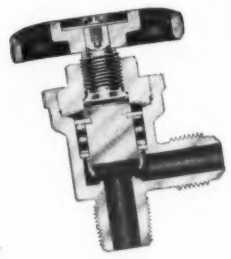


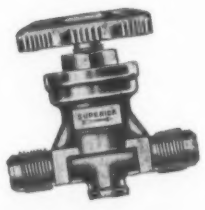
Superior ANGLE VALVES

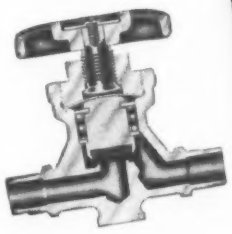
CATALOG NUMBER	CONNECTIONS SIDE	CONNECTIONS BOTTOM	LIST PRICE EACH	NET WT EACH LBS	CODE WORD
104-4B	SAE Flare	Male Pipe	$5.00	.75	Lefom
104-4C			5.00	.75	Lefro
104-6B			5.00	.75	Lefus
104-6C			5.00	1.00	Legaz
105-8B			5.00	1.00	Legon
105-8C			5.00	1.25	Lejac
106-10D			6.00		Lekad



Superior LINE SHUT-OFF VALVES*

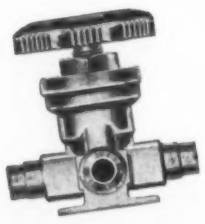
CATALOG NUMBER	CONNECTIONS	LIST PRICE EACH	NET WT EACH LBS.	CODE WORD
204-4	SAE Flare	$5.30	.9	Lelim
204-6		5.30	.9	Lelot
205-8		5.30	1.25	Lemaf
206-10		6.60	1.5	Lemjo
204-4S	O.D. Sweat	5.30	.9	Lemuz
204-6S		5.30	.9	Lenag
205-8S		5.30	1.25	Lenek
206-10S		6.60	1.5	Lenov

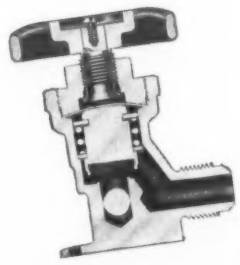




Superior BRANCH SHUT-OFF VALVES*

CATALOG NUMBER	CONNECTIONS	LIST PRICE EACH	NET WT. EACH LBS	CODE WORD
304-4	SAE Flare	$6.25	1.00	Lepem
304-6		6.25	1.00	Lepuc
305-8		6.25	1.50	Lepwe
306-10		7.50	1.75	Leraj
304-4S	O.D. Sweat	6.25	1.00	Lesak
304-6S		6.25	1.00	Lesoz
305-8S		6.25	1.50	Leted
306-10S		7.50	1.75	Leruf





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What the Dealer Selling Freezers Should Know About Using Them

'Questions-and-Answers' on Freezer Practices

Editor's Note: In the final instalment of the series, Mr. McIntire gives a "veteran user's" answer on some of the questions most frequently asked on the use of a freezer.

By T. J. McIntire

Q. What temperature should you maintain in a freezer cabinet?

A. On this, I am more or less neutral. However, I run mine at zero.

Q. I have heard it said on different occasions that a home freezer does not maintain low enough temperature to properly freeze foods. That food should be frozen at -25 to -40° F.

A. Yes, I have heard this myself. However, I have been freezing foods, as I have told you, for over 20 years with most excellent success. My cabinet maintains a temperature of zero. And I assure you that you can do just as good a job of freezing, and do it in a temperature of zero, as can be done in much lower temperatures providing the foods are *properly packaged.*

However, it isn't necesary to take my word for this. The University of Minnesota was among the first of our colleges to go into food freezing scientifically and to do very definite experimental work, and I have one of their bulletins here with me and this is what they say:

"If the freezer is kept at 10 degrees below zero or lower, having a rapid air movement and allowing the air to circulate, these temperatures are very satisfactory for initial freezing. Rapid air movement may reduce this freezing time to one-half or enable satisfactory freezing to be done at *zero.* However, too much emphasis has been placed on the need for very rapid freezing when it is other factors that determine the quality of the frozen product."

"Other factors" mean selection of good foods to start with and *proper packaging* before freezing.

I also quote from *Frozen Food Industry and Locker Plant Journal* from the March, 1946 issue, which says:

"Freezing rate has no effect on texture or color, tests show. The speed of quick freezing vegetables has little if any effect on the quality of frozen products or at least as far as texture, color, and flavor is concerned.

"This conclusion was reached by food chemists at the State Experimental Station in Geneva, N. Y. and the School of Nutrition in Ithaca, N. Y., where studies of different rates of freezing vegetables are in progress. In the opinion of the investigators, the quick freezing practiced by commercial processors is not necessary for high quality in the frozen products, although it may be desirable from the standpoint of production."

I assure you that a very satisfactory job of freezing can be done at zero temperature if proper packaging is used.

Q. Do you have to boil vegetables before freezing them?

A. As to the preparing of foods for freezing, I do not attempt to explain that as practically every company making and selling home freezers puts out a recipe book. I would suggest you obtain one of these, which, in most instances, gives full information on all products.

However, if this is not satisfactory, I suggest you write to your state university agricultural extension department, requesting one of their books on home freezing.

Q. Do you think people living in the city have any use for a home freezer?

A. Of the 20 years I have used a home freezer, I lived right in the heart of Los Angeles 14 of those years and my freezer box was just as valuable as when I lived in the country. While I do live in the country now, I am only about three and one-half or four minutes from a very fine grocery store and market and only about 10 minutes from a most excellent bakery, so my problems are no different now than they were when I lived at 1954 North Curson Ave., Los Angeles, Calif.

Q. Do you have to rewrap your bread?

A. Most of the bread comes already sufficiently wrapped for freezing. I would suggest, however, that you inspect the seams on every loaf and, if any are loose or broken, then I would rewrap.

Q. How do you keep fruits from turning dark?

A. The best way is to use ascorbic acid, which is vitamin C, I believe, and which can be obtained in most any drug store. A great many recipe books put out now give instructions for using it.

However, in the event you can't get it, I suggest that you slice the fruits or quarter them into water into which you have put a liberal amount of lemon juice; then, drain them before freezing. In the absence of either of these, slice the fruit right into cool water, again draining just before you put them into the freezer.

Q. Do you freeze citrus fruits?

A. Yes, we freeze segments of both oranges and grapefruit, freezing them either with liberal amounts of sugar sprinkled on them or a simple syrup. They are delicious and, of course, we freeze a great deal of citrus juice.

Summing up my many years experience with a home freezer amounts to these facts. It has improved our standard of living inasmuch as we can have the finest quality of foods at any time in the year whether they be in season or not. Also, it has been a tremendous labor saver in our home.

But the item more important to all of us is the very great savings we have made by having a home freezer.

In our home, we kept very accurate records from March 1, 1946 to March 1, 1947. I will give you a few instances showing how these savings were made. The items I am about to give show the comparative costs between commercially frozen, canned, and frozen in our own home freezer and, in each instance, they were reduced to cost per pound regardless of the kind of package used.

	Commercially Frozen	Canned	Processed and Frozen at Home
Corn	32¢	19¢	8¢*
Peas	37¢	16¢	12¢
Peaches	28¢	25¢	8¢
Pastries (such as pies) ...	88¢		28¢
Eggs	Processed and frozen at around 45¢ per dozen and consumed when they were from 60¢ to 72¢ per dozen.		
Meat	An average of 20% saving.		

*Including packaging and allowance of electricity for blanching.

Without going any further into details, the result of our year's records showed that we saved on meat $47.50; vegetables, $49.20; fruit, $25.80; pastries, $21.80; eggs, $11.30; making a total gross saving of $155.60.

From this we deducted cost of current for operating the freezer, which was recorded separately from the rest of our household in the amount of $11.45. Also we deducted the cost of rental on our frozen food locker of $16, leaving us a net saving of $128.15.

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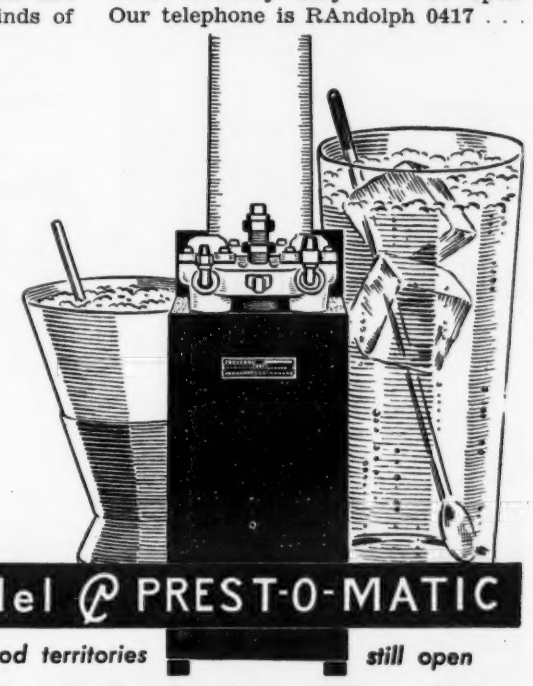

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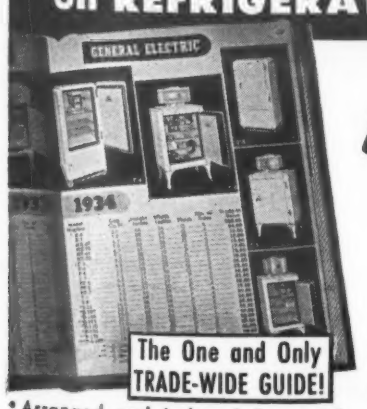

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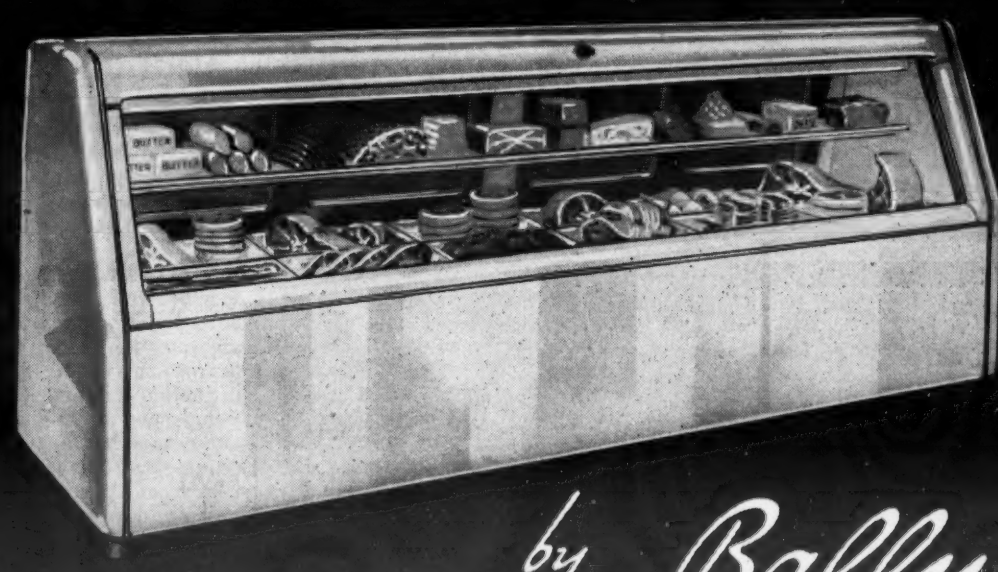

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What's New

* * *

Grill Element Can Be Removed for Cleaning

CHICAGO—A new electric table grill has been added to the Holliwood line of small electric appliances manufactured by the Finders Mfg. Co. here, the firm has announced.

The grill features an E-Z lock device which when twisted permits removal of the heating element for cleaning, the manufacturer declared.

It also features a removable top plate, with drip grooves and slot, a drip drawer to catch fat, grease, or crumbs, and a Jewel indicator to show when the unit is in operation.

The model no. 56 weighs 10 lbs. and measures 13½ by 13 by 4¼ in. It operates on 250 to 1,000 watts, 110 volts, a.c. only, the company said.

The Holliwood electric table grill retails for $17.95.

Finders also makes the Holliwood electric table broiler and the Gem sizzle platter.

Telecoin Vendor Handles 6 Types of Chilled Juice

NEW YORK CITY—Telecoin Corp., distributor of coin-operated merchandising and service devices here, will soon introduce on a nationwide scale a coin-operated dispenser of refrigerated, canned fruit and vegetable juices, to be known as the Tele-Juice.

The 6-ft. automatic vending machine is said to serve six varieties at 10 cents each, with a total capacity of 300 six-ounce cans. Sanitation is cited as the keynote in the design and operation of the new Telecoin machine.

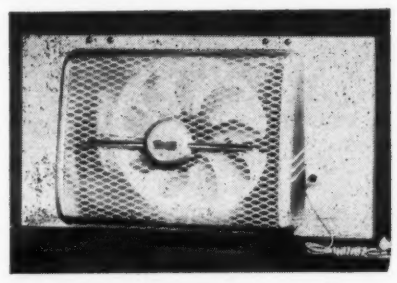
Selection is made by the customer from an illuminated display window. Insertion of the coin and pressing of a button delivers the flavor desired.

Telecoin Corp. Tele-Juice.

Opening of the can, according to the manufacturer, is accomplished by a knife-type opener, which is kept at 180° F. in an enclosed container to insure against bacterial growth and rusting. The incision, which is made by the opener, is only big enough to admit the straw, which is also kept in an enclosed dispenser.

Below the delivery chute is an opening, just large enough to easily slip the used can through, for disposal of the used can and straw.

The Tele-Juice unit is said to operate on the gravity principle, thereby eliminating movable parts and simplifying servicing.



* * *

Ventilator Draws Less Electricity Than Bulb

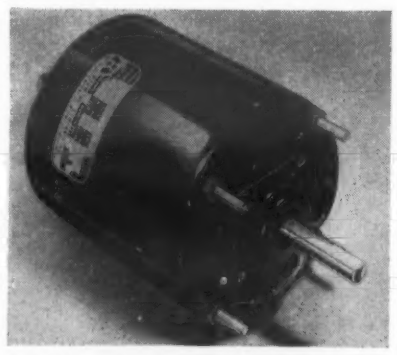
DETROIT—National Appliance Co. here is distributing nationally a new Ventrola reversible window-type ventilator, which has been engineered to consume less electricity than many light bulbs.

Called Model No. 61, it is recommended for use in offices as well as homes and can be reversed to draw air into the room as well as expell it from the room. The unit is finished in baked enamel and chrome. The panels are of 20-gauge steel.

Being portable, the manufacturer points out, the fan may be temporarily or permanently mounted in any window whose width ranges between 25 in. and 35 in. It is possible to close the window without removing the ventilator.

It is claimed that the one-piece 9-blade fan with a diameter of 10 in. will move 750 c.f.m., or completely change the air in a normal size room in less than two minutes.

The ventilator is 13½ in. high, 25 in. wide when collapsed and 35 in. wide when extended. It operates on 60 cycle, 115 volt a.c.



* * *

Redmond Type 'W' Motor Designed for Fan Duty

OWOSSO, Mich.—Introduced as an addition to the wide line of fractional horsepower electric motors manufactured by Redmond Co., Inc. here, is a new unit built in sizes up to 1/15 hp. for fan duty applications.

It is referred to as Type "W," is of ventilated 4-pole shaded pole design for a.c. operation and is non-radio interfering.

The motor was engineered especially for use on products such as air circulators, window type ventilators, unit coolers, evaporative coolers, exhaust and pedestal fans, air conditioners, etc.

The Type "W" motor has a large capacity lubrication system circulating oil through porous bronze bearings. This type bearing is said to retard gumming, filter the lubricant, and provide an even flow of lubricant at all times directly to the 2 square inches of bearing surfaces. The bearings are spring tension centered and broadly spaced to provide smooth operation.

The precision skewed, flush-weld rotor, patented by the maker, is micro-balanced and has a machined surface, rust inhibited. In this type rotor there are no open inductor slots, the company said.

This 1/15-hp. motor operates at 1,500 r.p.m. on 115 volts, 60 cycles. Overall housing length is 5⅛ in., diameter, 3 15/16 in.

1948 Electromaster Range Line Sports 'Oven Eye'

MT. CLEMENS, Mich.—Faster cooking, new automatic controls, and the exclusive "Oven Eye" are announced as outstanding features of the three electric ranges making up Electromaster's 1948 line.

Banquet Superb, Banquet Royale, and Banquet Special are the names given the models. Forty in. wide, 26 in. deep, and 42 in. high, the ranges have double box type frames of steel for stronger construction and are finished in granite-like, white porcelain enamel.

The Pyrex Aircell "Oven Eye" is said to enable the user to actually check baking and roasting progress without opening the oven door. It consists of hermetically-sealed twin lens of heat-resistant Pyrex glass that will neither crack nor discolor, according to the manufacturer. A switch turns on an interior oven light.

The oven broiler unit has been increased to 3,000 watts.

Claiming that the ranges are automatic to a new high degree, Gerald Hulett, vice president in charge of sales, said the wing-tip-styled control panel provides positive timing control over oven and deep well cooking. Even small service appliances are automatically timed when plugged into the range outlet, it was noted.

An announcement listed these other points:

The warming oven has a 200-watt heating unit and there is room in the oversized drawer, mounted on roller bearings, for keeping food and dishes warm or for use to "raise" bread or biscuits.

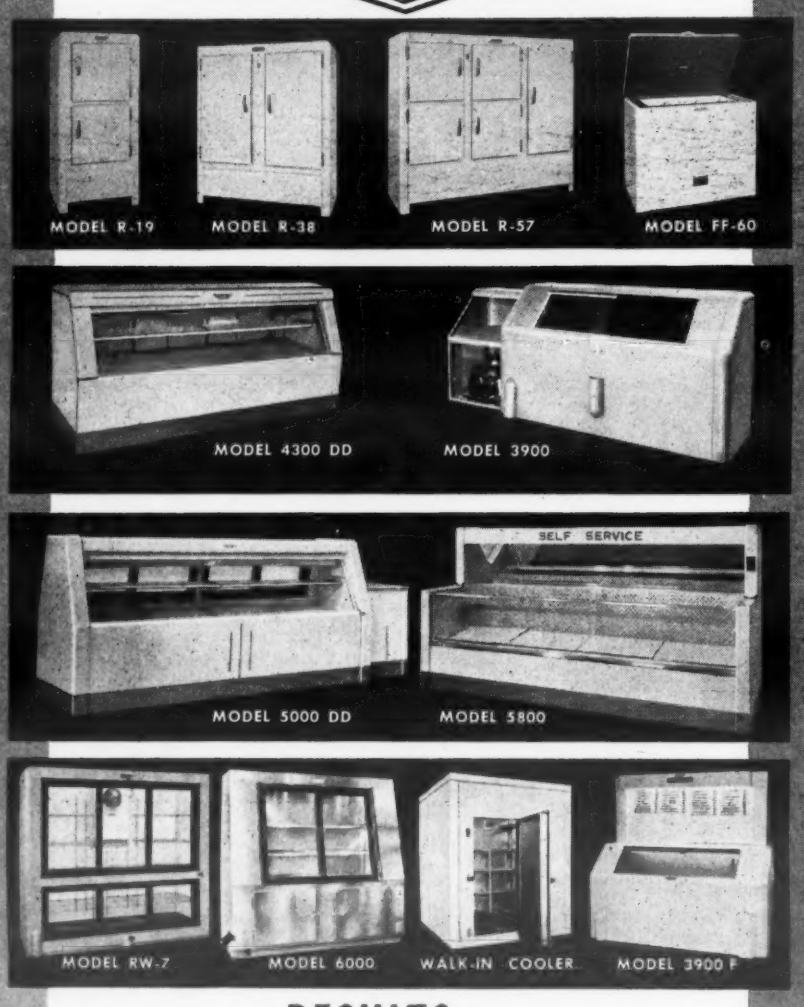
Equipped with a 1,200-watt heating unit, the improved Vita-Miser deep well cooker can also be used for deep fat frying.

A large, 8-in., 2,100-watt surface unit and two 6-in., 1,250-watt surface units feature the Speedomaster monotube.

The Tower-type lamp not only gives better visibility but the bulb is simple to change. Signal lights are provided for surface units, oven, and warmer drawers.

Switches are mounted on the back panel as a safety measure.

FOGEL
THE RESULT-ful LINE
FOGEL PHILADELPHIA, PA.



RESULTS . . .

that can be counted in *sales profits*—results that add up to greater dealer success and complete customer satisfaction. Yes, for dealers and customers alike, FOGEL'S complete line of Quality-Engineered commercial refrigeration equipment rates *tops* for *results*. Feel welcome to write for further information concerning this outstanding refrigeration line.

One sales franchise gives you a complete commercial refrigeration line.

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Manufacturing Since 1899

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Your refrigeration parts and supply house in Central New York and Northern Pennsylvania

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THE Everfrost IMPERIAL FOUNTAINETTE

IT'S A NEW NOTE

featuring
THE EVERFROST REFRIGERATED CARBONATOR AND WATER COOLER

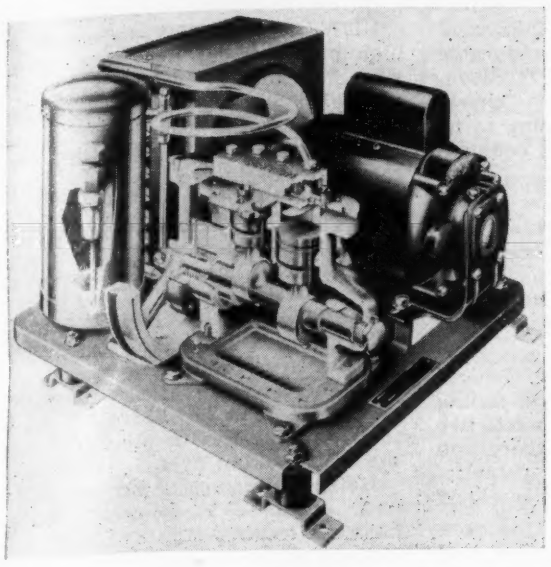
completely self-contained

"Everfrost" scores again! Here is an unusual development in soda fountain manufacturing. A complete soda fountain, entirely self-contained. Capacity 20 gallons of ice cream, complete with refrigerated carbonator and water cooler, and a ½ H.P. hermetically sealed compressor. This is another reason why the "Everfrost" line is so popular . . . another reason why aggressive fountain dealers are signing "Everfrost" sales franchises now. Selected territories are now open. Write or wire for complete information today.

ANDERSON & WAGNER INC.
8701 South Mettler Street • Los Angeles 3, Calif.

What's New (Cont.)

Jack & Heintz Turns Out New Light-Duty Unit



At left is one of the new light-duty condensing units that recently started rolling off the Jack & Heintz assembly line. Purpose of the new unit, which comes in two models, is to furnish a suitable power source where an ordinary ⅓ hp. might be insufficient and a heavy-duty ½ hp. would be too heavy.

Speedee Offers 12-Page Recipe Book with Mixer

NEW YORK CITY — Speedee Co. here is manufacturing a portable food and drink mixer, which is said to whip, beat, mash, and cream foods. Known as model M-100, the mixer is recommended for malteds, cocktails, and sherbets.

The appliance features an all chrome motor housing, stainless steel agitator, catalin handle, and a powerful silent a.c. motor, the manufacturer points out.

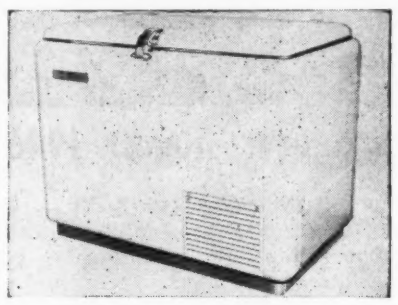
A quart-size mixing bowl with cover is provided for storage as well as mixing of foods. The unit with a 12-page recipe book retails for $9.95, including federal tax.

Ben-Hur Freezer Model Features Compactness

MILWAUKEE—The Ben-Hur Mfg. Co., builder of the "Ben-Hur" farm and home freezer, announces an entirely new, more compact model.

One of the main claims made for the new Ben-Hur model 197 is its additional food storage capacity without any increase in freezer dimensions, say officials of the company, stating it provides 9 cu. ft. of food storage within the over-all dimensions of the average 6-cu. ft. cabinet. The new Ben-Hur unit is built with a wall of fibreglass insulation.

The new horizontal Ben-Hur condensing unit eliminates waste space while providing greater compactness and operating efficiency.



Ben-Hur Freezer Model 197.

Other features of the new model 197 freezer include the "slamless" cover, welded steel cabinet construction, insulation hermetically sealed against moisture, heavily plated safety hardware, extra thick insulation, and flat table-top, table height.

"Jiffy Cube" 12-unit tray.

* * *

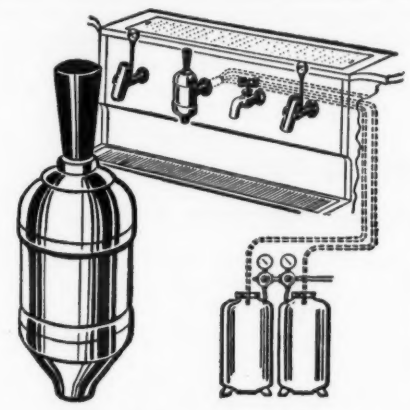
'Jiffy Cube' Ice Trays Are Marketed In 3 Sizes

DETROIT—A "pop-out" ice cube tray composed of individual plastic cups is currently being marketed by the Plastray Corp. here.

Known as "Jiffy Cubes," the individual ice cube cups are made of Polyethylene, a fully flexible, unbreakable plastic material, the company said. In order to release cube from individual container all that need be done is to invert it over a glass or pitcher and slightly press bottom of "Jiffy Cube."

Advantages of the device, as pointed out by the manufacturer are: greater sanitation (no fingers touch cubes); facility of use (no levers or prying); and greater economy (no ice is wasted).

"Jiffy Cube" trays, made of anodized aluminum, come in two sizes. An eight-cuber is priced at $1.49 complete; and a 12-cube tray at $1.95 complete. Extra cups, which fit either size tray, are available for $1 a dozen. A special double-size cup, designed for frozen desserts, sell at $1 for a package of six, the firm stated.



Hudson's 3-way drink dispenser.

* * *

Drink Dispenser Handles 3 Drinks from 1 Faucet

DETROIT—A three-way drink dispenser which will draw soda, cola, and ginger ale from the same faucet is now being manufactured by the Hudson Products Co. here.

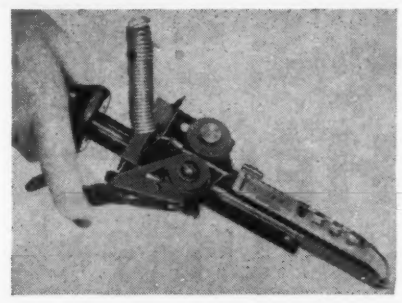
The dispensing system consists of a dispensing faucet with a vertical handle to control the syrup valves, the manufacturer said. The syrups are stored in stainless steel tanks that are an integral part of the system, but which can be placed in any convenient location, he added.

To operate the dispenser, the handle is pulled straight forward for soda water, to the right for cola, and to the left for ginger ale.

Easily adjusted proportioning valves for adjusting the amount of syrup to carbonated water are part of the system.

Finger-Tip Can Control Solder Feeding Device

LONG ISLAND CITY, N. Y.—Jobs involving soldering operations are turned out faster and easier with the new "Solder-Matic" solder feeding attachment made by Nelpin Mfg. Co., 45-17 Davis St., Long Island City.



Nelpin Mfg. Co. Solder-Matic.

* * *

This device, which smoothly feeds solder at the touch of the finger-tip, clamps on to any standard electric soldering iron.

By freeing one hand to manipulate parts, pliers, or screw driver, the new "Solder-Matic" saves solder and time. It reduces rejects by enabling the operator to do a better job in crowded spots or awkward positions. By feeding exactly the amount of solder needed, at the right time and place, the "Solder-Matic" eliminates molten solder drippage and improves quality of workmanship.

Solder in short lengths, in small coils, or from a 25-lb. spool can be handled by the new "Solder-Matic."

PURO Electric WATER COOLERS

BRANCHES IN PRINCIPAL CITIES
MAIN OFFICE
440 LAFAYETTE ST., N.Y. 3, N.Y.
PURO FILTER CORP. OF AMERICA
DRINKING WATER SPECIALISTS FOR 50 YEARS

REAL BARGAINS ON
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With Delco Motors

4—⅓ H.P. Universal (Less Control)..$50.00 ea.
30—⅓ H.P. Universal (Less Control).. 57.50 ea.
60—⅓ H.P. Universal, Model #DD33 F.L.C. 110 ..... 85.00 ea.

Condensing Units—Less Motor—Control

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Direct Drive Efficiency
No Seal Trouble
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DEALERS DISTRIBUTORS WANTED
PROTECTED TERRITORY

¼—⅓ HP. Sizes High and Low Temp.

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ROLL-OR-KARI DUAL TRUCKS
Patented Step-On-Lift • Folding Handles
Capacity 1000 Lbs. • Shipping Weight 40 Lbs.
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GIANT ARMY STYLE

8 FOOT BEVERAGE COOLER WITH A 47 CASE CAPACITY!

★ Available now—the long awaited IDEAL giant beverage cooler! The cooler that made refrigeration history at most of Uncle Sam's largest army camps . . . under gruelling conditions of use!

No ordinary cooler could provide the performance required to take care of thousands upon thousands of thirsty service men. But years of refrigeration "know how" and experience in the beverage cooler field enabled IDEAL to design and engineer an 8 foot standard size cabinet with a capacity of 47 cases of 12 oz. bottle beverages.

Great for the army, even greater now for civilian use! Just think what this means to your customers—under a standard bar IDEAL is able to cool and serve *twice* as much bottle beverages as ordinary coolers . . . at no added expense!

These beverage coolers will more than satisfy the most exacting buyers. Here is your opportunity to assure your leadership in your territory with the *right cooler* . . . a cooler *proved by performance!* For more information on available territories, write today!

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'Freon' Compressors and Condensing Units (1 to 7 ½ h.p.)

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Ammonia Valves 1/4" to 5" Screwed and Flanged
Hilger 3 Way Valves For Dual Relief
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DIVISION OF
THE XL REFRIGERATING CO.
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L. J Freitas Handles Sales For Kerotest In SW

PITTSBURGH—Leo J. Freitas was recently appointed southwest sales representative for refrigeration valves and fittings manufactured by Kerotest Mfg. Co., according to G. R. Allen, general sales manager.

Leo J. Freitas

Mr. Freitas headquarters will be in Dallas. He served for many years as an experimental engineer in Detroit and as Dallas branch manager for Fedders Mfg. Co. During the war he was assistant director of the WPB Refrigeration Branch. Since 1941 he has been acting as a representative for a number of firms serving the refrigeration industry.

Maytag Kansas City Division Moves Into New Building

KANSAS CITY, Mo.—The Kansas City division of the Maytag Co. moved into a new building at 1230 Burlington Ave., North Kansas City, Oct. 1.

The building, a one-story structure with a 114-ft. front and a 148-ft. depth, provides 16,800 sq. ft. of floor space for offices, service, and warehouse departments. Rail switch facilities with capacities for unloading two cars and enclosed docks for transport and pick-up trucks have been constructed.

Is That Recession Coming?

NO! Says GM Head--Not With Durables Output Up

NEW YORK CITY — Continued activity in durable and semi-durable goods has convinced Alfred P. Sloan, chairman of the board of General Motors, that there is not going to be a serious depression in this country.

"You can't have a depression when makers of durable goods are busy," Mr. Sloan declared here recently.

However, he said there might be some minor readjustments. Heavy wage increases, in prospect next year, may seriously affect the balance of prices, he stated.

Mr. Sloan predicted that General Motors will have no trouble selling all its products for the next two years. Further, he noted, there will be several million new potential owners of cars because of workers' increased earnings.

The GM executive commented that his friends tell him they are not afraid to proceed with their enterprises or furnish necessary capital.

YES! Say Credit Men; It Starts Next Year

NEW YORK CITY — Because of high prices, buyer resistance, excessive inventories, too little capital, and labor unrest, 80% of the 3,500 members of the New York Credit Men's Association think a business recession beginning in the second quarter of 1948 is virtually inevitable.

However, the credit men don't believe the recession will hit steel and construction. They predict a boom in these industries.

The credit men expressed these opinions in a poll conducted by the association's credit planning committee. The survey was said to represent more than 20 diversified industries and services in New York and the metropolitan area.

Here are some other survey results: 60% of those responding reported business failures greater in the first eight months of this year than in the same period of 1946; 93% look for more failures; 95% said collections are slower than in December, 1946; 82% reported continued elimination or reduction of cash discounts.

Sixty-five per cent found purchaser resistance; 30% reported cancellation of future orders; and 80% thought increased inventories are an unfavorable trend creditwise because they mean an increase in dollar value rather than an increase of actual physical inventory.

The poll also revealed that the ratio of credit men reporting that customers are willingly issuing financial statements is more than 2 to 1; that 60% are now exporting; and that 85% of those companies not now exporting do not anticipate entering this field.

Excise Tax Receipts Ride High over August 1946

WASHINGTON, D. C. — Receipts of manufacturers' excise taxes on refrigerators, air conditioners, and the like and on electric, gas, and oil appliances for August were well above those for August, 1946, the Bureau of Internal Revenue reported.

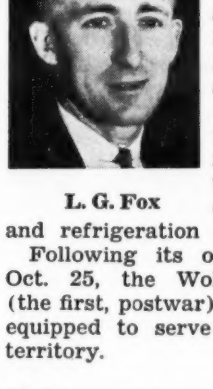
The bureau said August receipts on refrigerators, air conditioners, etc. totaled $4,697,304, compared with $2,573,428 in August last year. Those for appliances amounted to $6,375,511, compared with $2,573,428.

Increases were also shown on radio sets, components, phonographs, etc. The total for August this year was $5,084,018; that for August, 1946, $4,550,914.

Decreases were reported on electric light bulbs and tubes ($1,062,176 for August, 1947; $2,518,865 for August, 1946), phonograph records ($476,800 for August, 1947; $604,903 for August, 1946), musical instruments ($527,098 compared with $604,903), and sporting goods ($1,425,097 compared with $1,500,450).

Fox Supervises New Wolverine Warehouse

DETROIT—Wolverine Tube Division will open a warehouse this month at 1515 Fulton St., Houston, Tex.



L. G. Fox

L. G. Fox, southwestern sales representative for the company, will supervise the operation of the warehouse which will stock Wolverine seamless non-ferrous tube in the form of condenser tubes, S.P.S. pipe, copper water tube, and refrigeration tube.

Following its official opening on Oct. 25, the Wolverine warehouse (the first, postwar) will be completely equipped to serve the southwestern territory.

Clothier To Air Cool Store

BUFFALO — The entire store of the Kleinhans Co., men and boys' clothiers, will be air conditioned when a modernization program now underway is completed.

Broquinda Corp. Holds Open House at Factory

ST. PETERSBURG, Fla.—Officials of the chamber of commerce and many of the city's leading businessmen were guests of the Broquinda Corp. at an open house held at its new plant at Nineteenth St. and Second Ave. south.

Principal items now being manufactured by the Broquinda Corp., it was explained, are refrigerated ice cream trucks, non-refrigerated retail and wholesale milk delivery trucks, refrigerated wholesale milk delivery wagon bodies for handling paper cartons and custom-built dry package truck bodies.

The company has 65 employes and an annual pay roll of $150,000. Since Jan. 1, 1947, approximately 250 truck bodies have been completed in the new plant, peak production for any one month amounting to approximately 40 truck bodies.

Principal market of the Broquinda Corp. at the present time is the Florida dairy industry, but a national market is being developed.

Lately added to the Broquinda line are:

1. A commercially acceptable lightweight trailer refrigeration system.
2. A small refrigerated special delivery body for frozen confections, to be used by a company introducing automatic ice cream vending machines in Florida.
3. A two-compartment truck for carrying non-refrigerated and refrigerated products in the same truck body, or a two-compartment truck for carrying products at from 40 to 50° F. in one compartment and at zero in the second compartment.

Officers and department heads of the Broquinda Corp. are Frank A. Stead, president; Robert Peacock and C. E. Quinn, vice presidents; Ray J. Sheldrick, secretary-treasurer; Hans Lischka, design and development; R. G. Fitzell, accounting; Ray Manuel, sales; Tom Peacock, production.

FACTORY REPRESENTATIVES
WANTED

Experienced factory sales representatives to establish dealers and distributors for one of the leading Eastern commercial refrigeration plants.

Extensive national advertising program, leads and liberal commissions. Protected exclusive territories open. Men with experience in the refrigeration line and accustomed to earnings of $7500 upwards reply stating experience. Correspondence confidential. Our men know of this ad.

Box 2521, Air Conditioning & Refrigeration News

For Silent Operation and Longer Wear

on REFRIGERATION and AIR CONDITIONING EQUIPMENT

Use

MANHATTAN WHIPCORD FHP V-BELTS

They grip without slip.
They flex without overheating.
They are uniformly constructed for longer life.
They deliver the power that makes your equipment DEPENDABLE.

RAYBESTOS-MANHATTAN, Inc.
"Keep Ahead with Manhattan"
MANHATTAN RUBBER DIVISION, PASSAIC, N.J.

SAFE AS IF SEALED IN GLASS —WITH MARLO SPRAY UNITS

Perishable foods are perfectly preserved this modern Marlo way. These advanced Spray Coolers provide triple-safe protection against all three major hazards:

AIR-BORNE BACTERIAL INFECTIONS—Marlo Brine Spray Units retard the growth of molds, spores and fungi by washing the air antiseptically clean.

HEAT SPOILAGE—these efficient units always keep the temperature well below the danger point.

DRY-AIR SHRINKAGE—they hold the humidity exactly where you want it to prevent loss of volume and freshness that shrinks your profits.

Built in a full range of sizes—also Dry Coil and All Prime Wet Surface types.
Write for Bulletin 403.

MARLO HEAT TRANSFER EQUIPMENT

Ball-Bonded Blast Coils — Cooling and Heating • Air Conditioning and Refrigeration Apparatus • Industrial Blower Units • Unit Coolers • Evaporative Condensers and Coolers • Low-Temperature Apparatus • Cooling Towers

MARLO COIL COMPANY
ST. LOUIS 10, MISSOURI

Refrigeration Problems

And Their Solution

By P. B. Reed

For Service and Installation Engineers

Manager, Refrigeration and Air Conditioning Division, Perfex Corp.

Avoiding Trouble from Leaks & Moisture (2)

The easiest field method of removing this moisture from the inner surfaces is to draw a good vacuum on them. This not only takes out the moist air but it also vaporizes the surface moisture so that it can be taken out.

BOILING WATER AT 70°

At ordinary atmospheric pressure (zero gauge, 14.7 pounds per square inch absolute or 29.92 inches of mercury barometer) water boils at 212°. If the tubing, evaporator, etc., were heated to 212° the inside surface moisture would boil and the water-vapor could be blown out.

But it is not practical to heat these parts to 212° in the field, after the lines are in place and the evaporator is hung. So we need to get this inside surface water to vaporize at ordinary room temperatures, say 70°.

Water will boil at 70° but the pressure on it must be reduced to .36 pounds per square inch absolute, or, stated another way, 29.18 inches of mercury vacuum. If the room were warmer, say 90°, the vacuum would only have to be 28.5 inches of mercury (.7 pounds per square inch absolute).

Thus, in the field, the most effective method of removing the inside surface moisture is to draw a good vacuum on the installation lines, evaporator, solenoids, expansion valves, etc. This causes the moisture film to vaporize and the vapor is drawn out of the system.

A NO-BUBBLE VACUUM

In practice, it is not enough to draw a good vacuum but also to hold it. To make this test, connect a ¼ in. copper tubing to the discharge of the vacuum pump. (If the compressor on the condensing unit is used as the vacuum pump, this connection will be at the gauge port of the discharge service valve.)

Put the other end of the ¼ in. tubing down into a clean, dry pint milk bottle. Then run the vacuum pump until a good vacuum is obtained and very little air is coming out of the tube.

When this is accomplished, pour clean, clear compressor oil into the milk bottle so as to cover the end of the ¼ in. tubing at least one-half an inch.

As long as bubbles come out of the end of the tubing and up through the oil, air is being pumped out of the system. Within 15 or 20 minutes the bubbles should stop, indicating that the vacuum pump has pumped out all it can.

Then stop the vacuum pump for about one-half an hour. When it is again started no bubbles should come from the tube. If they do, it shows that there is a leak or so in the system and that air got in during the half-hour the system was standing on a vacuum. Tightening the fittings will sometimes stop the leak. If it cannot be found otherwise, it may be necessary to let in some refrigerant and find the leak with a halide torch. Then another no-bubble vacuum should be drawn.

A DOUBLE ADVANTAGE

Thus a no-bubble vacuum does two things:

(1) Under this low vacuum the air and moisture are removed.

(2) It is good insurance that there are no leaks, for if a deep vacuum will hold for one-half an hour there is not much chance of there being a leak.

A no-bubble vacuum does not entirely take the place of a pressure leak test, for there are other parts of the system, such as the condenser, receiver, etc. that may not have had a vacuum on them.

USE A SEPARATE VACUUM PUMP

It takes an unusually good refrigeration compressor to draw a 29 in. vacuum, and the vacuum must be at least that deep if the tubing, evaporator, etc. are 75° or under. Therefore, it is best to use a separate vacuum pump that is designed to draw a good vacuum.

In fact a good vacuum pump should pump almost a "perfect vacuum" and should have no trouble in drawing a 29.8 or 29.9 in. vacuum, providing, of course, that the system is tight, for a small leak would let in air and keep the vacuum pump from attaining a good vacuum.

BAD FOR THE COMPRESSOR

If the compressor on the condensing unit is used as the vacuum pump, all the air, moisture, and dirt in the lines are drawn through the new compressor. Thus a separate vacuum pump saves the compressor.

A vacuum pump can be bought at a reasonable price, or one can be made from a refrigeration compressor. A rotary compressor from a household refrigerator is often used as the vacuum pump for small commercial systems.

If a refrigerating compressor is used, be sure that it has very little clearance volume. It should be able to pump at least a 29.6 in. vacuum, for water boils at 46° at that pressure, so it would not be effective in removing moisture if the equipment were cooler than 46°.

IMPORTANCE OF A GOOD INSTALLATION

Contrary to what the inexperienced person might expect, many companies put their best mechanics on their installations, for they know that if the installation is done properly in the first place, it will probably give very little subsequent trouble.

The importance of getting the air and moisture out of the system and having no leaks, can hardly be overestimated.

Air or/and moisture combine with the refrigerant and oil to form acids, and if the oil is impure, if the system is not clean or if methyl alcohol or other un-approved agents are put in the system, all sorts of compounds may be formed.

Expansion valve needles, discharge and suction valves, seal faces, bearings, bushings, pins or other finely finished parts may be corroded and damaged so that they will cause trouble. Sludges or waxes may form and prevent proper lubrication. Copper plating may start and cause bearings to seize, valves to leak, and seals to leak.

The motor windings in hermetically sealed units are readily attacked by these acids or harsh alkalis.

There are only two things that belong in a compression refrigerating system. *Refrigerant and Oil.* Keep everything else out! One of the best ways to keep out these undesirable things, such as air, water, etc. is to make a careful installation, pump a no-bubble vacuum, use only the refrigerant specified by the manufacturer and oil that he approves. Use nothing else without his consent.

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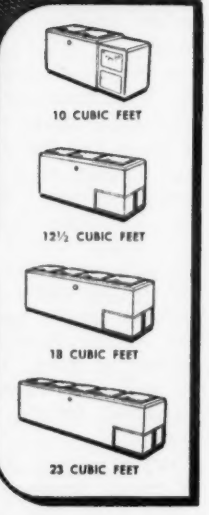

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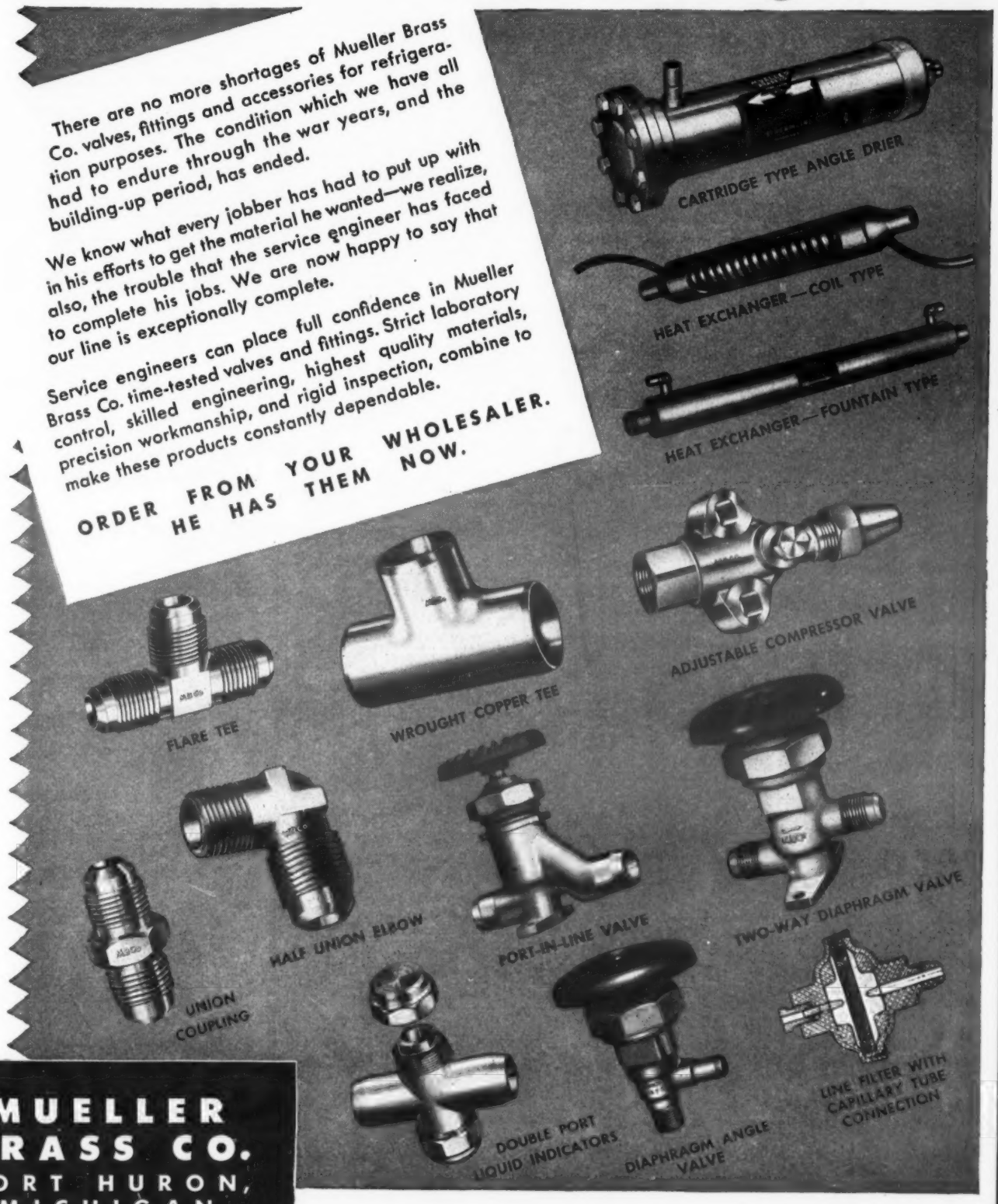

MUELLER BRASS CO.
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Income from Lockers Broken Down To Show Prospect Profit Possibilities In a Plant

Editor's Note: This is the fourth instalment in a series of articles describing how locker plants are promoted and sold by Refrigeration Contractors, Inc., of Youngstown, Ohio, headed by Ed Wright. Detailed data on a specific sale and installation given here should interest all contractors.

By C. Dale Mericle

" 'For instance, let's work out here just what the typical income would be on a 200-locker plant. Now here, for instance, are the various sources of income which a locker operator has. Now these sources are applied only to the locker operation; they have nothing to do with any allied business.

" 'Rental, the rental on 300 lockers on an average of $17 per locker is $5,100.

" 'You will find that throughout this area that the average amount of processing that you will do per locker is about 400 lbs. The National Locker Association says that the average amount of meat processing per locker was 378 lbs. Now these figures did not show the fact that such an amount as 55,000 lbs. processed was for people who did not put it in lockers, such as restaurants; meat cut up for farmers who used it at threshing time; hogs that were cut up and cured then made into sausage, Canadian bacon, and ham from the hog.

" 'Let us use the figure of 400 lbs. of meat processed per locker at 4 cents a lb., this brings us in $16 per locker or a total of $4,800 for processing.

" 'Now if you rendered lard, cure and smoke, slaughter, process fruits and vegetables, kill and draw poultry, these are other sources of income. Let us put down the rendering of lard. These plants took in an average of 57 cents per locker from lard rendering and they were operating on a charge which is about 40% lower than we would recommend. In our case it is very safe to say that you can figure on $300 per year income from rendering of lard.

" 'Curing and smoking of ham and bacon will return you approximately $500 per year. Fruits and vegetables, $300 per year; the sale of containers $150 a year; if you kill and dress poultry, an income of $150 a year.

" 'In addition to this you will find that about 75 of the 300 people who rent these lockers will not produce meat. You will be able to sell most of these people meat, and it is very safe to assume from other records that you will net from each of these 75 people about 400 lbs. per year. Now this would be about 30,000 lbs. of meat. But for the sake of argument we will cut this down to about 20,000 from which you will make about $600 a year.

" 'Now if you handle groceries in connection with this enterprise you will find that your average sale of groceries will profit you about $3,000 per year. All right, now let's total up the figures and see what we have.' "

Annual Profit Based on New Building

INCOME		EXPENSE	
Rentals	$5,100	Help	$ 4,000
Processing Meats	4,800	Power and Light	350
Rendering Lard	300	Heat and Water	150
Curing and Smoking	700	Laundry	25
Fruits and Vegetables	300	Plant Repairs	300
Sale of Waste Fat, etc.	300	License and Taxes	500
Dressing Poultry	150	Rent or Int. on Investment	1,200
Sale of Containers	150	Depreciation	2,500
Sale of Meat	700	Plant Supplies	500
Sale of Grocery	3,000	Insurance	500
Total Income	**$15,500**	**Total Expense**	**$10,025**

$15,500 Income
10,025 Expense

$ 5,475 Profit

Answering Objections

"In answering any type of objection or question from the customer, it is better not to even recognize it as an objection but rather as a question that the customer does not understand, as it is probably an honest question in his mind. Another type of objection raised which is not an honest objection is when a customer has no interest but is simply attempting to make excuses.

"If you allow a customer to engage you in an argument you are only losing your time and his and will lose command of the situation. Sometimes, in order to avoid an argument on these questions you can use this approach:

" 'Mr. Prospect, you have been in this particular business for a number of years and you know more about it than I do or ever hope to. A lot of things you have learned from experience and not through books. You know what goods will go the fastest, you know where to place things for the best sale—you know all the questions a customer will ask as you have been asked these questions before.

" 'That is true of our business, also. I can almost anticipate the questions that you are going to ask me. Therefore, I think that as I go along with my story, most of your questions will be answered.'

"Then get back on the main track. For instance, on the question of debt, I handle this by saying:

" 'Is it a question of debt or one of using your credit? You are going into a proposition which you will probably not be able to finance in its entirety. But if you stop to think, your government is financed through the sale of stocks and bonds, a large corporation issues stock to obtain working capital, they give notes, all for the means of raising capital. At the time they are raising capital, they are providing an opportunity for the people who furnish the capital to realize a profit on their investment and to share in the enterprise.

'Profit-Sharing' Plan

" 'You will provide other people an opportunity to share in the profits of this business. If there was no need of capital in business, we would not need any banks. If every one was born with a million dollars the world would be poor because you cannot eat money. The natives in the deepest parts of Africa live right in the midst of the diamond mines but they are ragged.

" 'Someone has to do the work for the world and someone else has to grow the food. Money is simply the means of paying you and me for the service we render instead of being paid by the capital in the form of trade or barter.

" 'Any business that provides a sound investment is a business that capital is asking to finance—whether it is your capital or the other man's capital. The fact that it is sound and practical for others is all the more reason why it should be an interesting investment for you.'

"Here is a question that is raised very often by a prospect.

" 'I understand that locker plants are not doing very well at the present time. During the war period when meat was rationed they did very well because people wanted to store their meat whenever they could purchase it. But now I hear that locker rentals are falling off—people are dropping their lockers right and left.'

"Answer to that: 'What you have just said in reference to locker plants being full during the war period is true but that has nothing to do with the fundamental soundness of this enterprise. Now to answer your question, we will talk about before the war—let us not even consider the war ever occurred. Here is a study made by government departments and universities.

" 'During the war there were plants built that were filled because of panic. Many city people rented lockers. In many cases they got in before the farmer had a chance to get in. In our plant we have gone through a period of readjustment but the lockers are full again today. Some people dropped out but the producers have taken their places.

" 'Locker plants have been built since the war and I can show you many cases in which that is true. This is not a flash-in-the-pan business but is a business that has come through good and bad times. Through war and depressions. That is why it is a natural business.

" 'During the war there was a shortage of canned goods but it did not affect the canning industry. We go back to the days of Napoleon when wax was poured over foodstuffs in vessels and crocks to what we have today; you can see that there was tremendous development. The old cracker barrel is a thing of the past. Today you find that most of your foodstuffs are packaged in such a way to better protect them. The preservation of food is one of the most fundamental services that we can render.

New Standard of Living

" 'Cold storage plants were in existence for years before the war and the last war. This new method of living which was only brought into existence during the last 25 years with refrigeration is changing the standard of living of this nation and of the world. There are certain types of people who will never be prospects for the locker service.

" 'There will always be the light housekeeper who lives out of a can. There will always be the floater who eats in restaurants. There will always be the industrial worker who earns his living in other ways and will never raise food. In some cases, some of these people will be locker users.

" 'But the primary customer will be the producer of food whether he owns two acres or two thousand acres. They are the people who are the backbone of our country. They always have had and always will have food when other people are starving. They are solid people who have a piece of this world's earth for the sole purpose of enabling them to have that feeling of security that comes when a man knows that he has stored food away. The fact that some people took advantage of this service during the war is just the proof of the fact that they recognize it.

" 'To serve the needs of this country there still will be required 40,000 more locker plants. You will find that whoever gave you the impression that the locker business was falling off was not properly informed. It is our business to keep informed.' "

Now this entire selling approach, points out Mr. Wright, is intended to bring the prospect up to the point of signing a preliminary contract with Refrigeration Contractors, Inc.

This agreement has several interesting provisions. For example,

(Continued on next page)

YES, a completely new and revolutionary method of fireproof refrigeration construction using Zerocel Insulation has recently been developed by Gold Bond engineers. It not only brings you important savings over old-fashioned methods of low temperature insulation, but it also insures greater efficiency and permanence!

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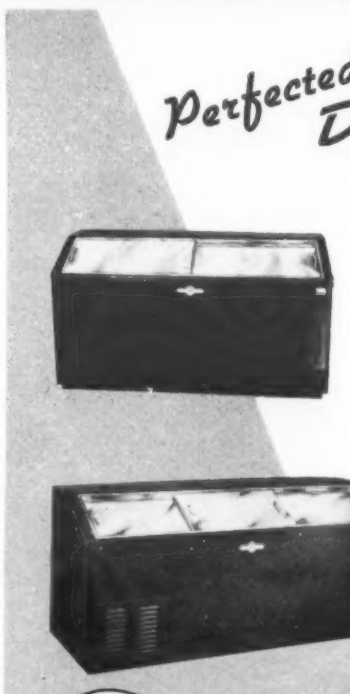

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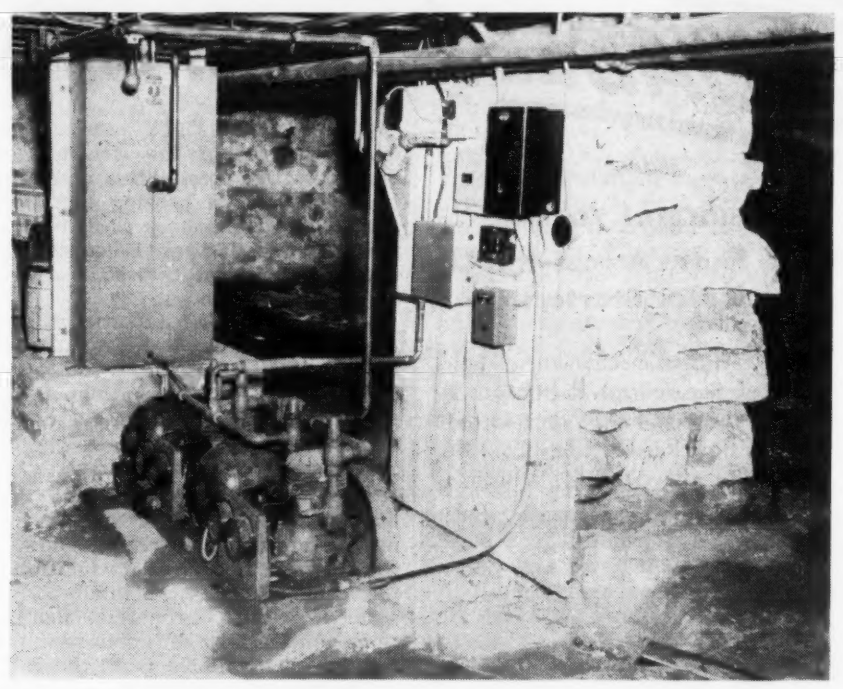
LOCKERS PROVIDE 'BLOOD TRANSFUSION' FOR STOREKEEPER

A glance in the till provokes happy thoughts for J. W. Gould and Hazel Mentzer, but before the locker plant was installed in Gould's country store, he had pretty tough sledding, reports Ed Wright.



Two 5-hp. Baker machines hooked up in tandem and a Kramer Thermobank in the basement of Gould's country store for the locker plant.

• • •

Reluctant Prospect Finally Convinced

(Continued from preceding page)

it provides that Refrigeration Contractors will prepare plans and specifications for the locker plant; prepare and supervise a publicity campaign to determine the number of potential patrons for the plant, and to advise and assist in obtaining finances for the construction of the plant.

The prospect, on the other hand, agrees to pay Refrigeration Contractors $500, and if enough community interest is shown, the prospect further agrees to enter into an agreement with the firm for the construction and furnishing of the plant in accordance with the plans and specifications.

If the prospect decides to go ahead with the construction, the first payment of $500 is applied on the construction and installation costs, provided, of course, that Refrigeration Contractors, Inc., handles the construction.

But if the prospect decides to hire a building contractor to perform the construction work and still desires the consultation services of Refrigeration Contractors, Inc., the preliminary agreement requires him to pay Refrigeration Contractors at the rate of $4 an hour (for less than eight hours) or $25 a day plus mileage at $0.06 per mile, and meals and lodging for the consultation services.

Proof of Success

The best proof of the success of the selling approach employed by Refrigeration Contractors, Inc., lies in the number of locker plant installations the firm has handled. Most of these are within a radius of a few miles of Youngstown, which, incidentally is the natural distributing point for about five counties in Ohio and Pennsylvania, according to Wright.

Some of these installations are worthy of description, not only for the mechanical and construction problems involved, but to illustrate some of the difficulties (and their solutions) in establishing a new locker plant.

The locker plant at New Springfield, Ohio, is interesting. It's located in a fairly large store which has been converted into an up-to-date supermarket, and it's thriving. All this despite the fact that New Springfield is a very small town, not much more than a cross-roads community.

The operator of this plant and store, J. W. Gould, was practically broke when a representative of Refrigeration Contractors contacted him, according to Wright.

"He absolutely refused to even listen when we first started talking about locker plants," says Wright. "We had picked him out because his was the only place in town that had sufficient room. The building was suitable and right in the center of town.

"There was one other store in town doing pretty fair. It had the local postoffice. Of course, our prospect had nothing to compete with the postoffice to attract people.

"We had to see him time and again before we could sell him the idea. We finally told him," recalls Wright, "that we were going to construct our own locker plant if he didn't want to go into it. This convinced him that he should.

"At the time, of course, no one knew very much about locker plants. We had a salesman who went out and talked to the churches and put on several frozen food dinners. We would invite about 35 couples to each dinner.

"Over this store in New Springfield there was a hall used as a meeting place for the townspeople. Years ago this type of hall was quite the thing. The downstairs was the old 'general store,' and the upstairs was divided into rooms, including a kitchen and dining room. We found it very practical for our use.

Dinners Promote Plant

"We had the townspeople come in for the frozen food dinners. We hired a local woman to handle the cooking under the instruction and guidance of Mrs. Wright, who would see that the foods were cooked just right, as we served them nothing but frozen foods.

"During the course of the dinner, the salesman would talk with the people and explain to them the advantages of frozen foods. Most of the people would not believe that they were eating frozen foods. The only way to convince them was to show them the packages and have the local woman cook give testimony that she had cooked them herself right out of the packages," explains Wright.

"All in all, we put on about six different dinners and ended up by renting about 80 lockers. This, of course, was all before the plant was constructed. Some of the rentals were paid in advance, while some people promised to take a locker when the plant was ready.

"With this evidence of interest, plus the fact that he had a friend who would endorse his notes, Gould borrowed about $1,800 from a bank in a neighboring town. When he finally opened for business, he had all his lockers rented within 30 days. Even while we were building the plant we were getting quite a lot of inquiries, and almost all of the lockers were rented by the opening day.

"At the time we contacted him, he was renting his store and paying $25 a month rental. The people in the community, however, were driving five to 10 miles away to deal with chain stores.

"We built the first locker room right in the building he was occupying. The room was built in sections of plywood panels bolted together. This construction was chosen to permit us to dismantle the room and set it up elsewhere if that ever became necessary," Wright explains. "He didn't own the building.

"Mr. Gould, an old carpenter, and I put the thing up ourselves," he continued. "We would work about 12 hours a day and we first put in 180 lockers. We had to build the cooler room in a shed in back of the store.

"This cooler was insulated with 8 in. of dried sawdust, vapor-proofed, and sealed with ¾ in. thick Celotex. For five years, now," says Wright, "that cooler has held a temperature of from 32° to 40° F. Gould did not have money for proper insulation so that was the way we did it. We obtained the sawdust from a local basket factory. We hauled it ourselves and packed it in the walls after vapor-proofing the outer wall.

"Gould declares that the whole affair was like somebody giving him a blood transfusion," says Wright. "He was practically broke, and this put him on his feet. It increased his grocery business tremendously.

"The very next year he opened up a lard rendering, smoking, and curing business. Although he was a country slaughterer and did most of the butchering himself at first, after the first year he hired a man to come in and do the cutting. At the present time the plant has about 400 lockers, all of which are rented.

"We have also built another locker plant about four miles from New Springfield, and this likewise has 400 lockers. This one was put in by a man in the seed business. He purchased the building which had formerly housed an A & P store that had moved out of the town. This plant has been in operation for more than a year and netted $6,000 during the year despite the fact that the owner had hired all his work done by others.

"But getting back to Gould—it took him about three years to pay off everything. In addition to the original cost, he had put in a $900 meat case. Additional lockers went into the Gould plant since the war. It did not mean a new building, however. When we put in the original plant the building was divided into two separate stores, only one of which Gould occupied.

"After he bought the building with the proceeds from his locker operation, he tore out the partition and put another locker room in the space formerly occupied by the other store. It did not take up all the space and this left him enough room so that he could also enlarge his market.

"He bought all new fixtures and put in a very modern store. Along with his regular supply of groceries and meats he now retails a tremendous amount of frozen foods."

(To Be Continued)

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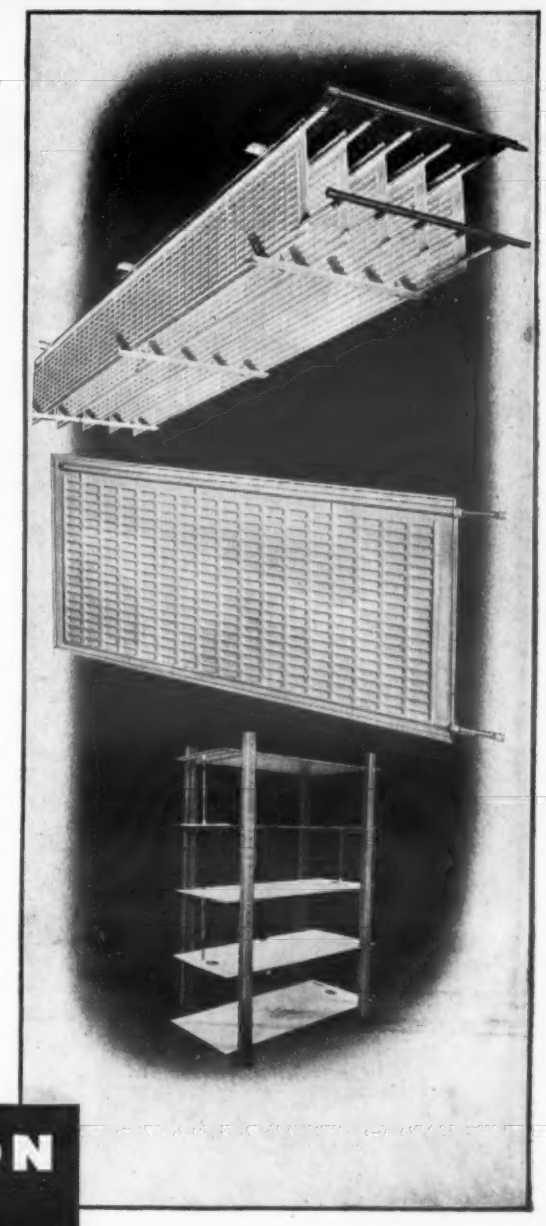

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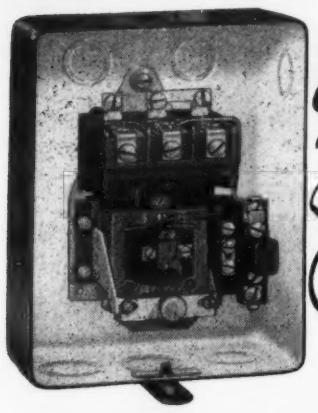

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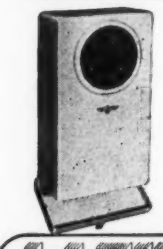

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Chance To Pyramid Electricity Sales Gives Utilities Big Stake In Future of Heat Pump

NEW YORK CITY—As a start toward informing the electrical industry of the possibilities and problems involved in heating homes by heat pump, the Indoor Climate committee of the Edison Electric Institute has published its first in a series of reports on the subject.

The initial report is entitled, "The Heat Pump. What It Is—Its History—The Electric Company's Interest In Its Development." Other reports will be forthcoming as sound, factual information is available, E. A. Freund, committee chairman, declared.

The current report covers a brief history and description of the heat pump, an explanation of how it works, a discussion of its relation to the electric utility, a tabulation of residential and commercial installations, and a list of publications on the subject available from the E.E.I.

The report contains 31 pages and can be purchased from the institute at 25 cents per copy.

In it, the heat pump is defined as "an electrically driven machine which can be used for heating or cooling a residence without combustion." It may use either warm air or hot water circulating systems.

Possibilities of this device, from the utility point of view, include an increase of approximately 10,000 kwh. per year in the residential heat pump owner's consumption of electricity and its use as an opening wedge for the introduction of other electrical appliances into the home.

With the heat pump, the report said, heat may be taken from a source, such as air, water, or earth, at whatever temperature these substances happen to be and transferred at a temperature of approximately 120° F. into a residence.

Air as a heat source can be used "in those sections of the United States where outdoor temperatures do not fall much below freezing and where only a small amount of heat is needed for indoor comfort," the report stated.

"Where well water is available as a heat source, we can cool this water down to about 35° F. and pump the extracted heat to the residence where we need it. The water is put back into the ground where it regains its normal temperature."

Nature Stores Heat

When "the outdoor air is very cold just at a time when a great deal of heat is needed and well water may not be readily available," heat can be extracted from the earth, "where nature stores a vast quantity of heat."

The report pointed out that air can be used economically as a heat source only in warm climates because "the lower the temperature of the heat source, the larger the refrigerating system needed to extract a required amount of heat." And the larger the system, the more expensive it is to operate.

Heat-from-air systems are used chiefly in California and Florida, it said.

Water from wells seldom falls below 45° F. in this country, the report declared. "Since it is always possible to cool water down to 35° F. it makes a good heat source." Successful installations in offices and other commercial buildings have been made using water as a source, it stated.

A combination of these two systems is being tried. Air is used until outside temperature falls below a certain point and then the system is switched to water. "This method may find wide application," it asserted.

Warmth Below Frost Line

In the earth, however, "nature has provided an almost unlimited store of heat at temperature levels which make heat pumps for heating economically justifiable," the report said.

"During the winter the frost line penetrates the ground to various depths, depending on the climate and the locality. Below this point temperatures are fairly constant and rise with increasing depths to 60 or 65° F., a suitable temperature for a heat source of the heat pump system.

"A substantial number of test installations indicate that this may be the most widely available heat source in most sections of the country.

"Much remains to be done to develop the art in this application. Suitable piping arrangements must be tested for extracting heat. The circulating fluid must be determined for absorbing the heat from the ground. A number of manufacturers and utility companies are actively carrying on work on this problem."

Two general methods are now being tested for extracting heat from the ground: using a refrigerant gas or using water. In either case, the liquid is circulated through pipes sunk into the ground where it absorbs heat and carries it to the refrigerating machine. When refrigerant is used, it goes directly to the compressor. When water is used, it goes to an evaporator where the heat is transferred to the refrigerant.

"Shapes and sizes of piping systems in the ground differ widely," the report declared. "One method is to drive a 4 in. pipe vertically into the ground to a depth varying between 100 and 200 ft. and to insert in this pipe (which will probably fill with ground water) a loop of smaller pipe through which the heat absorbing liquid is circulated.

"Another method is to lay the pipes in horizontal loops just below the frost line. Spiral coils sunk in vertical shafts to depths of 20 ft. also have been tried. Several other plans are under experiment."

A brief step by step outline of how the reverse cycle refrigeration system operates to heat a house in winter and cool it in summer was presented in the report.

Water Absorbs Heat

The outline explained that the cold water circulating through the pipes buried in the ground picked up heat from the ground to heat the house. "The earth," it pointed out, "no matter how cold to the touch, can be made colder by extracting heat units from it." Water, colder than the temperature of the earth, provides the transfer medium.

Heat units in the water are then transferred to a refrigerant by circulating the water through pipes immersed in a tank containing the refrigerant. The refrigerant is compressed and adds more heat from the electricity that drives the compressor.

Now hot, the refrigerant flows through a condenser where a fan draws off the heat units and circulates them around the house. The refrigerant vapor, deprived of its heat, condenses into a liquid and returns to the evaporator.

For cooling in summer, the heat units are transported in the opposite direction. Hot humid air from the house is passed over the former condenser coils. But these coils, instead of containing hot refrigerant gas, now contain cold liquid refrigerant. The cold refrigerant picks up the heat from the air, flows to the compressor where it is compressed, and, as hot refrigerant vapor, enters the tanks in which the water pipes are immersed.

The hot refrigerant heats the water in the pipes and the water carries the heat out of the house and loses it in the earth.

As previously stated, the utilities see in the heat pump a means of greatly increasing their sales of kilowatthours. Their efforts in its behalf have only one objective, ac-

Continued on next page

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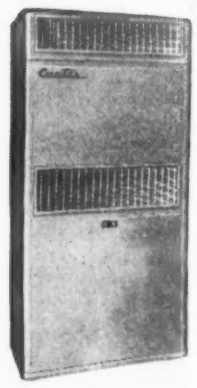

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Residential Heat Pump Installations

Utility	Utility Location	Installation Date	Installation Location	Compressor Size Hp.	Heat Source
California Electric Power Co.	Riverside, Cal.	1937	Riverside, Cal.	3	Air
City of Glendale	Glendale, Cal.	1946	Glendale, Cal.	3	Air
City of Pasadena	Pasadena, Cal.	1947	Pasadena, Cal.	5	Air
Imperial Irrigation District	Brawley, Cal.	1946	Brawley, Cal.	3	Air
	Brawley, Cal.	1946	Brawley, Cal.	5	Air
	Brawley, Cal.	1946	Westmoreland, Cal.	3	Air
Pacific Gas & Electric Co.	San Francisco, Cal.	1946	Bakersfield, Cal.	3	Air
	San Francisco, Cal.	1946	Fresno, Cal.	3	Air
	San Francisco, Cal.	1946	Red Bluff, Cal.	10	Air
	San Francisco, Cal.	1946	Bakersfield, Cal.	3	Air
	San Francisco, Cal.	1946	Bakersfield, Cal.	5	Air
	San Francisco, Cal.	1946	Oildale, Cal.	3	Air
	San Francisco, Cal.	1946	Bakersfield, Cal.	5	Air
	San Francisco, Cal.	1946	Piedra, Cal.	3	Air
	San Francisco, Cal.	1946	Bakersfield, Cal.	3	Air
	San Francisco, Cal.	1946	Bakersfield, Cal.	3	Air
	San Francisco, Cal.	1946	Fresno, Cal.	3	Air
	San Francisco, Cal.	1946	Sanger, Cal.	3	Air
	San Francisco, Cal.	1946	Bakersfield, Cal.	3	Air
San Diego Gas & Electric Co.	San Diego, Cal.	1946	San Juan Capistrono, Cal.	7½	Air
	San Diego, Cal.	1946	San Juan Capistrono, Cal.	7½	Air
	San Diego, Cal.	1946	San Diego, Cal.	7½	Air
Southern California Edison Co.	Los Angeles, Cal.	1946	Visalia, Cal.	5	Air
	Los Angeles, Cal.	1946	Beverly Hills, Cal.	10	Air
	Los Angeles, Cal.	1946	Van Nuys, Cal.	3	Air
	Los Angeles, Cal.	1946	Van Nuys, Cal.	3	Air
	Los Angeles, Cal.	1946	North Hollywood, Cal.	3	Air
	Los Angeles, Cal.	1946	Arcadia, Cal.	3	Air
	Los Angeles, Cal.	1940	Los Angeles, Cal.	3	Air
	Los Angeles, Cal.	1939	Puente, Cal.	3	Air
	Los Angeles, Cal.	1939	Mojave, Cal.	3	Air
Idaho Power Co.	Boise, Idaho	1938	Boise, Idaho	3¾	Water
Public Service Co. of No. Illinois	Chicago, Ill.	1946	Berwyn, Ill.	5	Earth
Indiana & Michigan Electric Co.	Muncie, Ind.	1946	Muncie, Ind.	3	Water
	Muncie, Ind.	1946	Muncie, Ind.	3	Water
	Muncie, Ind.	1946	Muncie, Ind.	3	Water
	Muncie, Ind.	1944	Muncie, Ind.	3	Water
Indianapolis Power & Light Co.	Indianapolis, Ind.	1945	Indianapolis, Ind.	3	Earth
Union Electric Co. of Missouri	St. Louis, Mo.	1946	Glendale, Mo.	5	Earth
Ohio Edison Co.	Akron, Ohio	1946	Silver Lake, Ohio	3	Water
Portland General Electric Co.	Portland, Ore.	1947	Portland,Ore.	—	Earth
Metropolitan Edison Co.	Reading, Pa.	1947	Reading, Pa.	3	Water (well)
Pennsylvania Power Co.	New Castle, Pa.	1947	New Castle, Pa.	3	Water
Houston Lighting & Power Co.	Houston, Texas	1946	Houston, Tex.	5	Air
Virginia Electric & Power Co.	Richmond, Va.	1947	McLean, Va.	3	Water
Wisconsin Electric Power Co.	Milwaukee, Wis.	1947	Milwaukee, Wis.	3	Earth

Commercial Heat Pump Installations

Utility	Utility Location	Installation Date	Installation Location	Compressor Size Hp.	Heat Source
California Electric Power Co.	Riverside, Cal.	*	Riverside, Cal.	150	Water
	Riverside, Cal.	1946	Indio, Cal.	5	Air
	Riverside, Cal.	1935	Riverside, Cal.	3-25 ea.	Water
City of Burbank	Burbank, Cal.	1946	Burbank, Cal.	3; 7½	Air
City of Glendale	Glendale, Cal.	1947	Glendale, Cal.	5	Air
	Glendale, Cal.	1947	Glendale, Cal.	3	Air
City of Los Angeles	Los Angeles, Cal.	1947	Eagle Rock, Cal.	7½	Air
	Los Angeles, Cal.	1947	Hollywood, Cal.	10	Air
	Los Angeles, Cal.	1947	Los Angeles, Cal.	3	Air
	Los Angeles, Cal.	1947	Los Angeles, Cal.	5	Air
	Los Angeles, Cal.	1947	Los Angeles, Cal.	7½	Air
	Los Angeles, Cal.	1946	Los Angeles, Cal.	7½	Air
	Los Angeles, Cal.	1946	Los Angeles, Cal.	3	Air
	Los Angeles, Cal.	1946	Los Angeles, Cal.	10; 10	Air
	Los Angeles, Cal.	1946	Los Angeles, Cal.	5	Air
	Los Angeles, Cal.	1946	Los Angeles, Cal.	5; 7½	Air
	Los Angeles, Cal.	1946	Los Angeles, Cal.	7½	Air
	Los Angeles, Cal.	1946	Hollywood, Cal.	5	Air
	Los Angeles, Cal.	1946	Los Angeles, Cal.	7½	Air
	Los Angeles, Cal.	1946	Los Angeles, Cal.	3	Air
	Los Angeles, Cal.	1946	Los Angeles, Cal.	5	Air
	Los Angeles, Cal.	1946	North Hollywood, Cal.	3	Air
	Los Angeles, Cal.	1946	North Hollywood, Cal.	3	Air
	Los Angeles, Cal.	1946	Los Angeles, Cal.	5	Air
	Los Angeles, Cal.	1946	Los Angeles, Cal.	3	Air
	Los Angeles, Cal.	1946	Los Angeles, Cal.	3	Air
	Los Angeles, Cal.	1946	Los Angeles, Cal.	3	Air
	Los Angeles, Cal.	1946	Reseda, Cal.	3	Air
	Los Angeles, Cal.	1945	Los Angeles, Cal.	5	Air
	Los Angeles, Cal.	1940	North Hollywood, Cal.	15	Air
	Los Angeles, Cal.	1940	Los Angeles, Cal.	3	Air
	Los Angeles, Cal.	1939	Los Angeles, Cal.	3	Air
	Los Angeles, Cal.	1939	Wilmington, Cal.	3	Air
	Los Angeles, Cal.	1938	North Hollywood, Cal.	7½; 7½	Air
	Los Angeles, Cal.	1936	Los Angeles, Cal.	7½; 7½	Air
	Los Angeles, Cal.	1931	Los Angeles, Cal.	900	Air
City of Pasadena	Pasadena, Cal.	1946	Pasadena, Cal.	3	Air
	Pasadena, Cal.	1946	Pasadena, Cal.	5	Air
	Pasadena, Cal.	1946	Pasadena, Cal.	7½	Air
	Pasadena, Cal.	1946	Pasadena, Cal.	10	Air
	Pasadena, Cal.	1946	Pasadena, Cal.	3	Air
Imperial Irrigation District	Brawley, Cal.	1946	El Centro, Cal.	10	Air
	Brawley, Cal.	1946	Brawley, Cal.	3	Air
	Brawley, Cal.	1946	Brawley, Cal.	5	Air
Pacific Gas & Electric Co.	San Francisco, Cal.	1947	Modesto, Cal.	7½	Air
	San Francisco, Cal.	1947	Red Bluff, Cal.	10	Air
	San Francisco, Cal.	1946	Oildale, Cal.	3	Air
	San Francisco, Cal.	1946	Bakersfield, Cal.	10	Air
	San Francisco, Cal.	1946	Corcoran, Cal.	5	Air
	San Francisco, Cal.	1946	Shafter, Cal.	7½	Air
	San Francisco, Cal.	1946	Corcoran, Cal.	3	Air
	San Francisco, Cal.	1946	Shafter, Cal.	5	Air
	San Francisco, Cal.	1946	Fresno, Cal.	3	Air
	San Francisco, Cal.	1946	Bakersfield, Cal.	3	Air
	San Francisco, Cal.	1939	Oakland, Cal.	15	Air
San Diego Gas & Electric Co.	San Diego, Cal.	1946	San Diego, Cal.	7½	Air
Southern California Edison Co.	Los Angeles, Cal.	1947	Long Beach, Cal.	7½	Air
	Los Angeles, Cal.	1947	San Fernando, Cal.	10	Air
	Los Angeles, Cal.	1946	Alhambra, Cal.	10	Air
	Los Angeles, Cal.	1946	Glendora, Cal.	5	Air
	Los Angeles, Cal.	1946	Belvidere, Cal.	5	Water
	Los Angeles, Cal.	1946	Hanford, Cal.	3	Air
	Los Angeles, Cal.	1946	Hanford, Cal.	5	Air
	Los Angeles, Cal.	1946	Hanford, Cal.	7½	Air
	Los Angeles, Cal.	1946	Newhall, Cal.	7½	Air
	Los Angeles, Cal.	1946	Ocean Park, Cal.	5	Air
	Los Angeles, Cal.	1946	South Gate, Cal.	10	Air
	Los Angeles, Cal.	1946	San Marino, Cal.	7½	Air
	Los Angeles, Cal.	1946	Gardena, Cal.	5	Air
	Los Angeles, Cal.	1946	Long Beach, Cal.	7½	Air
	Los Angeles, Cal.	1946	Belvidere, Cal.	5	Air
	Los Angeles, Cal.	1946	Belvidere, Cal.	10	Air
	Los Angeles, Cal.	1946	Whittier, Cal.	5	Air
	Los Angeles, Cal.	1940	Santa Ana, Cal.	7½; 7½	Air
	Los Angeles, Cal.	1940	Downey, Cal.	8¾	Air
	Los Angeles, Cal.	1940	Huntington Park, Cal.	6¾	Air
	Los Angeles, Cal.	1938	San Fernando, Cal.	7½	Air
	Los Angeles, Cal.	1938	Mountbello, Cal.	10	Air (water)
	Los Angeles, Cal.	1938	Pomona, Cal.	3	Air
	Los Angeles, Cal.	1937	San Bernardino, Cal.	10	Air
	Los Angeles, Cal.	1937	Whittier, Cal.	10	Air
United Illuminating Co.	New Haven, Conn.	1939	New Haven, Conn.	8—40	Water
Potomac Electric Power Co.	Washington, D. C.	1936	Washington, D. C.	20	Water
	Washington, D. C.	1935	Washington, D. C.	10	Water
Florida Power Corp.	St. Petersburg, Fla.	1946	St. Petersburg, Fla.	5	Air
	St. Petersburg, Fla.	1946	Winter Park, Fla.	5	Air
	St. Petersburg, Fla.	1946	St. Petersburg, Fla.	5	Air
	St. Petersburg, Fla.	1946	St. Petersburg, Fla.	5	Air
	St. Petersburg, Fla.	1946	St. Petersburg, Fla.	7½; 5	Air
Florida Power & Light Co.	Miami, Fla.	1946	Ft. Lauderdale, Fla.	5	Air
	Miami, Fla.	1938	Miami, Fla.	600	Water
Georgia Power & Light Co.	Valdosta, Ga.	1946	Valdosta, Ga.	7½	Air
Indiana & Michigan Electric Co.	Muncie, Ind.	1945	Muncie, Ind.	3	Water
	Muncie, Ind.	1944	Muncie, Ind.	3	Air
Kentucky & W. Virginia Pr. Co.	Ashland, Ky.	1940	Pikeville, Ky.	20	Water
Atlantic City Electric Co.	Atlantic City, N. J.	1936	Pitman, N. J.	15	Water
	Atlantic City, N. J.	1934	Salem, N. J.	4—5	Water
Ohio Power Co.	Canton, Ohio	1946	Brilliant, Ohio	15	Air
	Canton, Ohio	1940	Coshocton, Ohio	10; 15	Water
	Canton, Ohio	1940	Portsmouth, Ohio	25; 25	Air
	Canton, Ohio	1939	Steubenville, Ohio	20; 20	Air
Portland General Electric Co.	Portland, Ore.	*	Portland, Ore	{2—200 {2— 70	—
Virginia Electric & Power Co.	Richmond, Va.	1936	Richmond, Va.	40	Air
	Richmond, Va.	1934	Williamsburg, Va.	60; 20	Water
Appalachian Electric Power Co.	Logan, W. Va.	1940	Logan, W. Va.	15; 15	Water
Monongahela Power Co.	Fairmont, W. Va.	1938	Parkersburg, W. Va.	10	Water
Houston Lighting & Power Co.	Houston, Tex.	1947	Houston, Tex.	3; 5	Air
	Houston, Tex.	1947	Houston, Tex.	5	Air
	Houston, Tex.	1946	Houston, Tex.	3	Air
	Houston, Tex.	1946	Houston, Tex.	5	Air
	Houston, Tex.	1946	Houston, Tex.	5	Air
	Houston, Tex.	1946	Houston, Tex.	7½; 7½	Air
	Houston, Tex.	1946	Houston, Tex.	3	Air

*Under construction.

Electric Companies Will Promote Heat Pump Research, Installations, EEI Says

(Continued from preceding page)

cording to the report. That is: "To reduce to a minimum the period which so frequently elapses between inception of a new development and the day when the idea is translated into sales."

They are following two general, complementary lines of attack.

"First: To speed up the installation of heat pump systems by cooperating with manufacturers and prospective users. The objective is to secure test and promotional installations and to obtain operating data.

"Second: To institute a long range research program which, as a continuing project, will improve equipment, find improved heat sources, develop methods for extracting heat from these sources, and encourage the quest for future technical progress."

The tables at left have been extracted from the Edison Electric Institute report mentioned in the accompanying story. This data is published by the NEWS in hopes that it may be of value to readers interested in checking installations of the heat pump.

As examples of what is being done, the report noted that "utility groups, such as the Southeastern Electric Exchange, have authorized research studies.

"American Gas & Electric Service Corp., in cooperation with other utilities, has contacted interested manufacturers and has prepared tentative specifications to be used by the manufacturers for the design and development of equipment.

"Recommendations have been made to the industry by an informal group representing interested utilities to create a coordinating committee which will encourage research and development, will serve as a clearing house to avoid duplication of effort, and will guide technical development."

In considering the amount of business that utilities may expect from heat pump installations, the report pointed out that "the present goal of engineers working on the heat pump is to achieve a coefficient of performance of about 3½ to 1 which, translated into kilowatthours, would mean that for each 1,000,000 heat units (B.t.u.) delivered into a residence, approximately 83 kwh. would be required.

"A six room house with maximum heating requirements of 60,000 B.t.u. per hour, located in a heating zone where the design temperature is -5° F., and the normal annual degree days are 4,585, would require the equivalent full load operation of an automatic heating system for 1,675 hours per season and would require approximately 100,500,000 B.t.u. per heating season.

"With a coefficient of performance of 3½ to 1, each kwh. used in the motors of a heat pump system would deliver approximately 11,945 B.t.u. to the house heating system, requiring approximately 8,400 kwh. per season.

"To this figure of annual kwh. sales for residential heating should then be added a figure for summer cooling, because the heat pump provides in effect a year round air conditioning system. In the locality under consideration this is estimated to be about 2,000 kwh."

Such a load raises a series of problems that utilities will have to consider and solve before they try to tackle it.

Typical problems are:

What are the seasonal heating requirements? When do the peaks occur? What are their magnitude?

If summer air conditioning is already accepted in the larger homes, can existing equipment be used when converting to the heat pump?

Should promotion of the heat pump be confined to new homes or should an attempt be made to obtain conversion installations?

What steps should be taken to gain early demonstration or promotion installations and to gain the cooperation of the local heating and air conditioning contractors?

How may this potential load be fitted into existing rate structures? How will its load factor affect system revenues?

What is the influence of 3 hp., 5 hp., or even larger motors in residential areas on voltage regulation? What voltage and motor characteristics are desirable to limit starting currents to reasonable values? Are single or 3-phase motors preferable?

And, most important of all, what is the public demand for electrical home heating?

Considering everything, the report concluded, "developments to date are encouraging. Concerted effort may bring rapid fulfillment of the promise."

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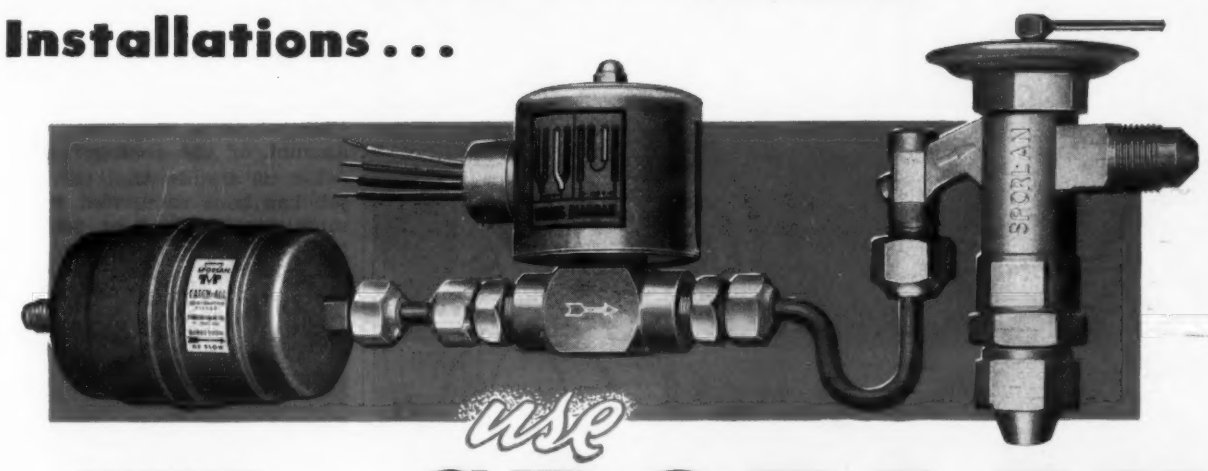

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The KEY to AIR CONDITIONING

by James J. LaSalvia

Editor's Note: An air conditioning salesman should know all the answers, including the one for the question, "Why not use ice?" In this and the next instalment, the author shows how to design an ice storage system for air conditioning, and then compares its cost with a mechanical refrigeration plant.

Refrigeration (Con't)

ICE STORAGE PLANT

Using ice for an air conditioning system is a simple operation, but the operating cost may be prohibitive. In this type of system there are certain factors which must be considered:

1. Will the ice be available at all times and in sufficient quantities?

2. Will the cost and the handling of the ice be low enough to warrant using it?

3. If ice is to be used, it becomes necessary to have a tank large enough to handle a day's supply.

When using ice, the design of the tank, chute, doors, and connections may be as shown in Fig. 3.

This illustrates a storage system where the ice is submerged in water in a tank. The tank is simple in construction and can be made of concrete, steel, or wood. A circulating pump is used to supply the cold water to the cooling coil, and the water is returned in the same manner to the tank.

The return water is distributed in the tank by a perforated header at the farthest end of the tank to eliminate any stratification of warm and cold water.

Water in the tank will be as low as 32° F. The cooling coils will probably not require any lower than 45° F. water for cooling the air. Therefore if 32° water is used, too much cooling will be provided, which is not necessary and is also wasteful for this type of system.

It becomes necessary then to provide a thermostat on the discharge side of the pump, set at whatever is the temperature of water to be used in the cooling coils. This thermostat operates the three-way mixing valve, using tank water and return water in various proportions to meet its demand.

It is obvious that at certain times the return water can be recirculated once or twice before taking any water out of the tank. As the water in the tank rises in temperature, it then becomes necesary to use more tank water than return water, and finally at end of the day's operation all tank water would be used.

CAPACITY AND SIZE OF TANK

The capacity and size of tank depend upon the amount of ice placed in the tank. Normally a tank large enough to hold one day's supply of ice is required, making the delivery of ice once a day. The amount of ice required depends upon the amount of the cooling load.

Let us assume that this particular job has been calculated for a maximum cooling load of 300,000 B.t.u. per hour. An allowance must be made for the losses in the piping and the tank, which can be assumed at 10%. Therefore, the total B.t.u. per hour to be met is 300,000 x 1.10 = 330,000.

Assume that the water entering the cooling coils is 45° and leaving is 55° F. The heat of fusion for ice is 144 B.t.u. per pound at 32° F. Therefore the pounds of ice which must melt per hour in this case are:

$$\frac{330{,}000 \text{ B.t.u.}}{144 \text{ B.t.u.}} = 2{,}290 \text{ lbs.}$$

If the day's operation is for 10 hours' duration, and the cooling load is the same for each hour, then the ice to be melted per day is:

2,290 lbs. x 10 = 22,900 lbs.

The usual run of job would normally be about 75% as an average for a whole day's operation, which in this case would be:

2,290 x 10 x .75 = 17,175 lbs.
or 8.6 tons

The weight of 1 cu. ft. of ice is 56 lbs.

The total volume of ice to be used would then be:

$$\frac{17{,}175}{56} = 307 \text{ cu. ft.}$$

The tank requirements would be 307 cu. ft. if the ice could be laid in the tank evenly so there would not be any void space. As this is impossible, we must assume additional space for these voids. A good allowance is 30% in extra volume, so that the tank volume would become 307 x 1.30 = 391 cu. ft.

This means a tank 10 ft. long, 8 ft. wide, and 5 ft. high.

It is necessary to increase the height to allow for space above the maximum water height. An extra foot should be added. So the size of the tank would be 10 ft. long, 8 ft. wide, and 6 ft. high.

The tank should be insulated with two layers of 2 in. thickness of cork slabs or equivalent. All supply and return lines and pump should be insulated with two layers of ¾ in. thickness of cold water insulation, with broken joints.

CAPACITY OF PUMP

The capacity of pump is as follows: We assume temperature of water to cooling coils at 45° and leaving 55° which is a 10° rise in the water temperature.

$$\frac{300{,}000 \text{ B.t.u.}}{500 \times 10°} = 60 \text{ g.p.m.}$$

If the head on the pump was assumed at 60 ft., the horsepower of the motor would be:

$$\frac{60 \times 1 \times 8.3 \times 60}{33{,}000 \times 50\% \text{ ef.}} = 2\text{-hp. motor}$$

If this system is to operate 10 hours per day and for 100 days for the cooling season, that would be 1,000 hours per season. The tons of ice required for the cooling season would be:

$$\frac{17{,}175 \text{ lbs.} \times 100 \text{ days}}{2{,}000 \text{ lbs.}} =$$

859 tons of ice

(To Be Continued)

Fig. 3—Equipment Involved for Air Conditioning with Ice Storage Plant

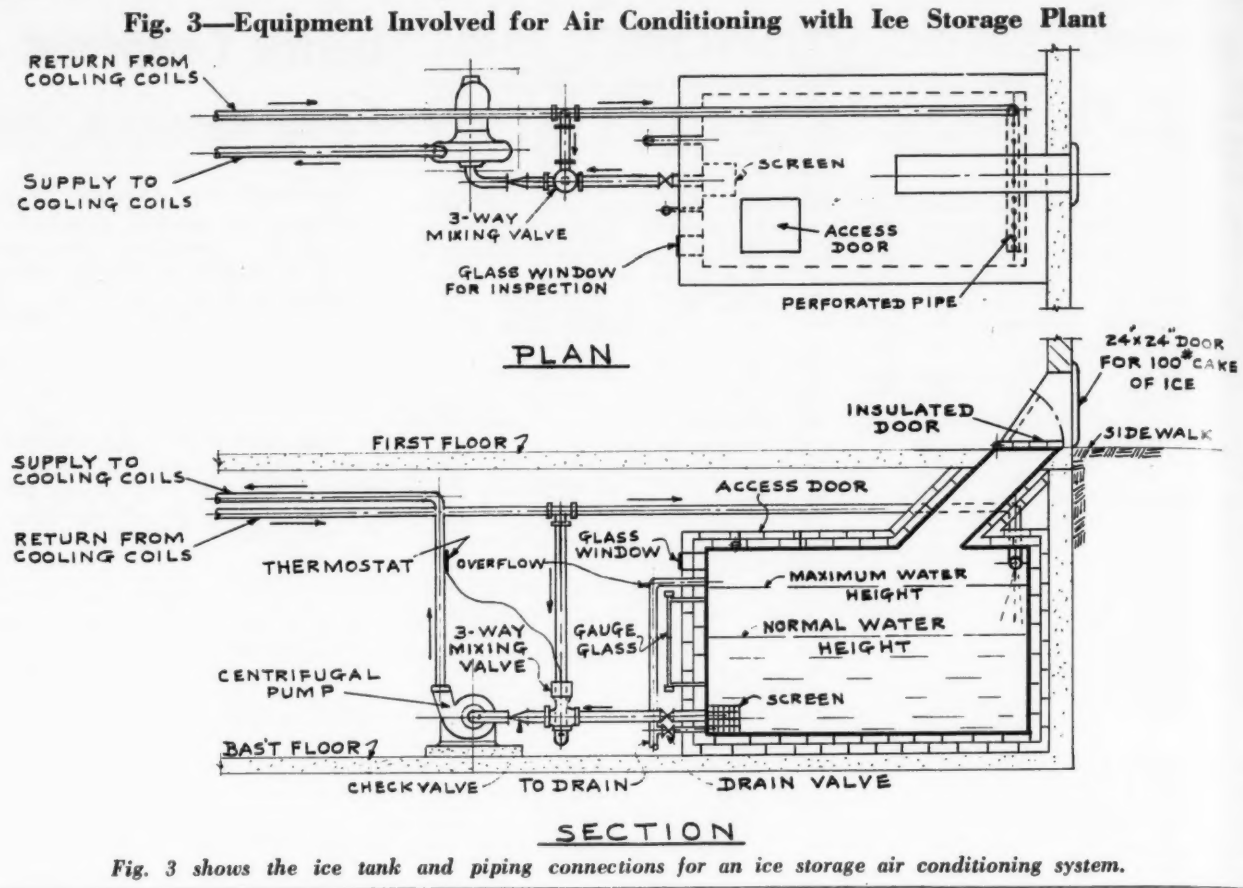


Fig. 3 shows the ice tank and piping connections for an ice storage air conditioning system.

Now Ready...
1/4 H.P. PACKAGE TYPE
Lehigh BLU-COLD UNIT
for all self-contained uses

IMMEDIATE DELIVERY

For medium and low temperature applications. Size: 18¾" long. 14¾" wide. 11¾" high without mounting. Built for heavy-duty performance with Freon-12 or Methyl Chloride. Precision built to the highest Lehigh standards.
Write for Special Data Sheets.

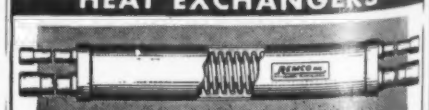
Lehigh BLU-COLD COMMERCIAL REFRIGERATION

Lehigh Mfg. Co.
Plant: LANCASTER, PENNA.

Electrimatic
2100 INDIANA AVE CHICAGO 16 ILLINOIS

Bowen
REFRIGERATION SUPPLIES, INC.
Atlanta Jacksonville
Tampa Miami Charlotte
"The South's Largest Refrigeration Supply Jobber"

REMCO "Liquid-Fin" HEAT EXCHANGERS



LIQUID flows inside the spiral corrugations in "prime" heat exchange relationship with the colder higher velocity suction gases which travel outside the rapid-transer "Liquid-Fin" heat exchanger element. Capacity per unit size is very high.
ASK YOUR WHOLESALER . . . OR WRITE
REMCO, INC., ZELIENOPLE, PA.

WORLD TRADE NEWS

Report from Cuba:

This Good Market Could Be Even Better If Prices Were Lower, Exporter Finds

Editor's Note: This is the fifth in a series of field reports analyzing the Latin American market for refrigeration and air conditioning equipment. The preceding articles were written especially for the NEWS by Philip H. Berritt, of American Refrigeration Export Co., New York City. Harry D. Friedman, Mr. Berritt's partner, continues the series by describing market conditions he found in Cuba.

By Harry D. Friedman, American Refrigeration Export Co.

Cuba is located in a climate that makes air conditioning and refrigeration equipment one of its greatest necessities. Thus the Cuban market for this equipment is good, and it will continue to be good as long as that country has American dollars.

It is doubtful that Cuba will ever run short of dollars to pay for our products for two reasons: First, because of the close friendship between the two governments; this is due largely to the fact that Cuba's second largest industry is dependent upon its tourist trade, which nets the country approximately $300,000,000 a year.

Second, because the United States is dependent upon Cuba for its source of sugar and fine tobacco.

Every famous line of air conditioning and refrigeration equipment is represented on the Island exclusively by either distributors or agents, or both. They all seem to be doing a fairly good job promoting their lines.

The main types of commercial equipment used in Cuba are reach-ins, display cases, ice cream cabinets, and back bars. Here is the situation on each of these:

Reach-ins: They sell fairly well and are preferred in white enamel or porcelain. However, of late, many stainless steel boxes have been sold because of the inability of American manufacturers to ship the former kind. The most popular sizes are 20 or 30 cu. ft., although the larger boxes are sold moderately.

Display cases: This type of equipment is very popular, but in the small sizes, chiefly 4 to 6 ft. in length. These small cases are used not only in grocery stores, delicatessens, etc., but in leading restaurants.

When they are used by restaurants, they serve both for the preservation of food and for display purposes. Restaurants do not have doors that are closed and, therefore, these cases are kept in front for show.

Ice cream cabinets: In Cuba, as in the States, ice cream is used in large quantities. It is sold on street corners not only from pushcarts but from horse-drawn vehicles, automobiles, motor-driven scooters, bicycles, etc.

If ice cream is purchased in a cafe or a store, it is kept in an ice cream cabinet. Most of these cabinets are imported from the United States, as very few are manufactured locally.

Back bars: These are chiefly manufactured locally from mahogany that grows on the Island. Of all the commercial refrigeration equipment used in Cuba, back bars are the most common, because one will find a cafe on almost every street corner in Havana, Santiago, Cienfuegos, and Camaguey, the principal cities.

Every cafe has a back bar in which bottled beverages and beer are kept. Actually, this back bar is a beverage cooler. Soft drinks are consumed in Cuba the way coffee is in Argentina or Brazil, meaning that the average Cuban pauses at least six times a day to drink bottled beverages or beer. Hence the terrific demand for back bars.

The picture on air conditioning equipment, condensing units, and frozen foods can be summed up as follows.

Air conditioning equipment: Air-cooled air conditioning equipment is most popular and is in demand. The water supply is not plentiful in this country, so water-cooled equipment is not sold in any appreciable quantities.

Most in demand is a window-mounted, self-contained unit. These should be 1 hp. in size, because mostly all the rooms in Cuba have ceilings at least 18 to 25 ft. high. The popular-sized ½-hp. and ¾-hp. units are too small to air condition a room there adequately.

Condensing units: There is actually no shortage of condensing units in Cuba. Most of our famous brands are very well represented by exclusive distributors.

There are, however, many units not in operation because they were shipped without motors. They were shipped to Cuba many months ago at a time when our manufacturers could not get a sufficient supply of motors from their suppliers.

The most popular size units are ¼ and ⅓ hp. However, distributors who have those sizes on hand, less motors, cannot move them because it is hard to get motors from the States. This difficulty exists because of our export control restrictions.

Frozen foods: Cuba, unfortunately, uses very little frozen foods in any form. In fact, most refrigeration distributors have heard of them but have never seen the actual product.

There are no importations from the United States to speak of, and there are no packers of frozen foods on the Island. Most all refrigeration distributors agree that some day frozen foods will be sold in Cuba, but until they do make their appearance, distributors are unwilling to invest money in frozen food cabinets.

Cuba, at the present time, is going through an inflationary period similar to the one in this country. Prices are high and many people are reluctant to buy the luxuries they dreamed about five and six years ago.

The man on the street would buy that household refrigerator, automatic toaster, or washing machine if the prices were lower. He has the money for these luxuries, but he refuses to part with it because of the high prices and because he does not know how soon the situation will change and he will go back to what he calls the "pre-war" standard of living.

The man on the street also says he doesn't want to buy anything now because he is afraid that within the next six months the price of the article he purchased will be 30% lower than that he paid.

All in all, Cuba is an excellent market for refrigeration equipment produced by American manufacturers. However, it is felt that in order to get more out of the market, our manufacturers should endeavor to see what they can do about dropping their prices a bit. This would bring our products within the reach of some of the people who are now reluctant to buy.

There is very little unemployment in Cuba, and I was told there are jobs for all who want to work.

Cuba is in the midst of a building boom which is the greatest in the last 35 years. Not only are private people building homes, but the government has instituted a program whereby highways, parks, and public buildings are being developed.

Of course, this building boom creates employment, so that the average workingman is now earning more money than he ever did before.

Henry Picks Wheeler To Manage Exports

CHICAGO — Gordon W. Wheeler, active since the war in the general sales of Henry Valve Co. products, has been appointed manager of the firm's export department.

G. W. Wheeler

Mr. Wheeler is a member of the Export Managers' Club of Chicago. He attended Arkansas university.

The company has added a complete line of solenoid valves to its lines of valves, driers, strainers, and accessories for refrigeration and air conditioning.

Meech In Zurich as Head Of New M-H Subsidiary

MINNEAPOLIS — Organization of a subsidiary company in Switzerland and transfer of Charles B. Meech from the home office to Zurich as manager have been announced by Harold W. Sweatt, president of Minneapolis-Honeywell Regulator Co.

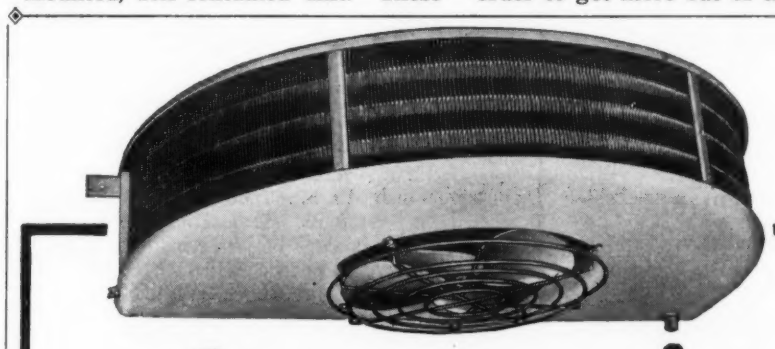
Named Honeywell A. G., the new firm will handle sales and service of the complete line of Honeywell controls as well as all of the industrial recording and controlling devices made by Brown Instrument Co., wholly-owned Honeywell subsidiary.

Mr. Meech joined Honeywell in 1936 after being graduated from Princeton university and taking post-graduate technical courses at the University of Minnesota. He has worked in both sales and service departments in Canada and at the home office.

Joining the Army in 1941, Mr. Meech served overseas as captain of an anti-aircraft battery until his discharge in 1946. Upon his return, he joined Honeywell's international division and remained at the home office until the present promotion.

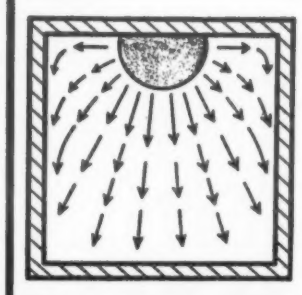
Leo deBruyn, a member of the company's international division, will assist Mr. Meech. Before joining the company, Mr. deBruyn worked in a technical capacity for Westinghouse Electric Corp., the Detroit Contractors' Association, and the Greyhound Van Lines. He studied at Albertinum university, Holland, and Wayne university and Lawrence Institute of Technology in the U. S.

Honeywell operates other foreign subsidiaries in England, Sweden, Holland, Belgium, and Mexico.



Announcing THE NEW Filterpure HALF ROUND COOLING UNIT with Air Purification FOR WALK-INS

TAKES NO STORAGE SPACE FROM A COOLER



Sold by Leading Refrigeration Wholesalers

BETZ CORPORATION
HAMMOND • INDIANA

OUTSIDE DIMENSIONS ONLY SLIGHTLY LARGER THAN HOUSEHOLD REFRIGERATOR

NOW IN PRODUCTION

The JORDON 14/6 Refrigerator is now in the big league class—has already become the fastest selling number in the industry. It meets the requirements of the big in-between market and its practical size bridges both commercial and domestic sales. Quality is beyond criticism and represents almost a half century of refrigerator building experience.

The 14/6 Refrigerator is going into

LARGE HOMES BOARDING HOUSES
EATING PLACES FARMS HOTELS
INSTITUTIONS HOSPITALS ETC.

and is being sold through department stores, appliance stores, and general commercial refrigeration dealers—all of whom are opening up NEW MARKETS with this practical TWO-TEMPERATURE refrigerator.

Maybe you are missing something! Drop us a line and ask for Special 14/6 BULLETIN

- 14 cu. ft. of Standard Refrigeration.
- 6 cu. ft. Freezer-Locker.
- 16 lbs. of ice cubes.
- ONE Condensing Unit and ONE Simple Control.
- All welded-steel construction—Hi-Baked White exterior.
- Priced exceptionally LOW to stimulate VOLUME turnover.

Jordon REFRIGERATOR CO.
Sales Division
235 N. BROAD ST., PHILADELPHIA 7, PENNA.
CABLE: "JORDONREF" LOcust 7-2913
PLANT: PHILA., PA.

AMERICA'S MODERN COMMERCIAL LINE

WILSON REFRIGERATION, INC.
- FARM AND HOME FREEZERS
- REACH-IN REFRIGERATORS
- WALK-IN REFRIGERATORS
- FARM MILK COOLERS

DIVISION OF WILSON CABINET CO., INC.
SMYRNA, DELAWARE

PAR REFRIGERATION EQUIPMENT

Tops in PERFORMANCE ECONOMY and EFFICIENCY

Lynch Manufacturing Corporation
... By Comparison — You'll Buy PAR
General Offices, Toledo 1 • Factory, Bellevue, Ohio, U.S.A.

★ NUMBER TWO ★

The Urge to Work

LAST SUMMER HEADLINES like the following could be seen almost any morning in the daily metropolitan newspapers:

HEAT IDLES 4,700 IN SIX PLANTS HERE

More often than not, these work stoppages were ordered by management. Perhaps the welders were wilting, or the core-room foundry workers were listless. Alert factory executives sent them home, because they realized output would be so low as to be unprofitable. They simply couldn't cope with those twin devils, Heat and Humidity.

Sometimes, when foremen and superintendents were suffering, too, conditions became so bad that workmen simply walked off the job spontaneously. In still other cases, irrascible union officials (possibly under orders from the Communists) seized upon *bearably* hot weather as an excuse for disrupting production.

Whatever the cause, heat and humidity closed factories.

At a time when the Peace of the World (and the continuance of our beloved Free Enterprise System here in the United States) depend upon more and more production, any work stoppage is to be deplored. When one group of laborers walks out for a time, they may throw thousands of others into idleness in our highly integrated economy.

Air conditioning in plants and offices (and in labor-management conference rooms, too!) can prevent these weather-inspired dismissals and wildcat strikes.

And the installation of this modern boon to better living and better working in any factory may easily prove to be one of the wisest investments the management will ever make!

Even if your employes aren't the restless sort; even if they are conscientious workers; even if they aren't dominated by communistic disturbers of the peace, they'll do a better job if you give them a chance to work in comfort, and to breathe clean, pure, wholesome, invigorating air.

The time may come, and soon, when union bargainers *demand* air conditioning as an integral part of a contract. Wise management will beat them to the punch.

And smart air conditioning dealers, if they are on their toes, will tell this story to operators of business establishments during the winter months.

Next summer may be too late.

This is one of a series of 26 advertisements dedicated to the progress of the entire air conditioning industry by

NEVINGER MFG. CO., INC.

GREENVILLE, ILLINOIS

Aug. Prize-Winners Announced by Bendix

SOUTH BEND, Ind.—Names of retail salesmen who won 213 prizes in the August phase of Bendix Home Appliances "million dollar sales contest" were certified to the manufacturer here Oct. 1 by the Lloyd Herrold Co., Chicago contest judging concern.

The winners qualified for the awards, worth $45,000, by completing in 25 words or less the statement, "I like to sell Bendix automatic washers because . . ."

Prizes are: First and second, popular priced automobiles; third and fourth, Bendix automatic washer, dryer, and ironer; fifth and sixth, any two of these appliances; seventh and eighth, winter vacation trip; balance, a deluxe Bendix washer or choice of merchandise.

M. R. Rodger, chairman of the contest, announced names of the principal prize winners as follows:

WARD HEADS BLUE DIVISION

"Blue" division of distributors; First, Bud Ward, Carson, Pirie Scott & Co., Chicago; second, William Johnston, Saline, Mich.; third Helen E. Dulin, Long Beach, Calif.; fourth, Irwin A. Leviant, Detroit, Mich.; fifth, Joseph Foley, Middle Village, Long Island, N. Y.; sixth, Donald Yakes, Lake Forest, Ill.; seventh, T. Kolasa, Detroit; eighth, George Garellick, Linden Radio & Appliance Co., Linden, N. J.

"Red" division: First, John A. Broom, Jr., Cate-McLaurin Co., Columbia, S. C.; second, Spencer A. Dagle, Gloucester, Mass.; third, Mary Cook, Warren, Ohio; fourth, M. Bartholy, Wilkinsburg, Pa.; fifth, Bennett Geiser, Orrville, Ohio; sixth, John M. Broderick, Medford, Mass.; seventh, W. T. Connolly, Taylor Brothers Co., Pittsburgh, Pa.; eighth, Robert H. Knight, Newburyport, Mass.

HANSON TAKES 'GREEN' FIRST

"Green" division: First, Leonard Hanson, J. A. Kirven Co., Columbus, Ga.; second, Henry Robinson, Baltimore, Md.; third, S. E. Stoller, Sioux City, Iowa; fourth, Ray Germine, New Haven, Conn.; fifth, A. D. Colman, Eudora, Kan.; sixth, George Wettstein, Cincinnati, Ohio; seventh, Laurence Brigden, Olympia, Wash.; eighth, E. T. Oviatt, Middlebury, Conn.

"Purple" division: First, Robert R. Rogan, Nashville, Tenn.; second, H. L. Hartsock, Lakemont, Pa.; third, Victor Rosing, Dayton, Ohio; fourth, L. J. Frecon, Chambersburg, Pa.; fifth, J. H. Latimer, Meridian, Miss.; sixth, R. Abramson, Dayton, Ohio; seventh, Earvin R. Speese, Kalamazoo, Mich.; eighth, S. F. Klein, Pensacola, Fla.

Entries too late for the August contest will be judged in the September phase, with Oct. 16 as the deadline for filing. Deadline for the October contest is Nov. 13 and the November contest deadline is Dec. 18.

"A.B.P.'s business is to boost your business."

THE ASSOCIATED BUSINESS PAPERS ABP MEMBER

A national association of business publications devoted to increasing their usefulness to their subscribers and helping advertisers get a bigger return on their investment.

2 Added as Hotpoint Steps Up Merchandising

A. W. Peterson L. I. Sweetland

* * *

CHICAGO—To meet an increased need for closer cooperation with both merchandising and non-merchandising electric utility companies, Leonard C. Truesdell, vice president of marketing for Hotpoint, Inc., reports the appointment of A. W. Peterson, formerly Kansas City district sales manager, as western manager of utility sales for Hotpoint, and A. H. Jaeger, as eastern manager of utility sales.

Truesdell said that "our plans for increasing annual sales volume to $100 million are closely geared to the acknowledged merchandising facilities of these electric utility companies. With their large sales crews, advertising programs, store demonstrations, window and floor displays and cooking schools, the utilities provide the ideal springboard for transmitting a national merchandising program to the local level. Expansion of our utility sales division is designed to provide us with the additional flexibility needed for greater coordination in this field."

Concurrent with the announcement of Peterson's appointment, Truesdell said that Hotpoint is also stepping-up merchandising operations in the home laundry division. Under L. I. Sweetland, newly appointed manager of the division, sales of washers, ironers and clothes dryers will be increased under the same general program of completely planned work centers that Hotpoint developed in the merchandising of kitchen appliances.

Detroit Contractors Elect Ben Hyatt as President

DETROIT—Benjamin G. Hyatt, of Copeland Authorized Refrigeration Service, was elected president of the Refrigeration Contractors Association of Detroit at the group's recent annual meeting.

He replaced James E. Perry, of James Perry Refrigeration, who was nominated for membership on the board of directors of the National Association of Refrigeration Contractors.

George C. Murphree, of Refrigeration Maintenance Corp., was named vice president. Frederick R. Bolton continues as executive secretary and counsel.

Members chose the following directors.

For the term expiring September, 1948: Mr. Hyatt; George L. Johnston, Johnston Refrigeration Construction Co.; John P. Lindsay, Ace Refrigeration Service; and Chris Milazzo, Automatic Refrigeration Service.

For the term expiring September, 1949: Charles Earl, Alpha Electric Refrigeration Co.; Mr. Murphree; James Terry, Dresco Refrigeration Co.; and Russell Tudhope, T. Tudhope Refrigeration.

For the term expiring September, 1950: Victor Fabian, Square Deal Refrigeration Sales & Service; Stewart S. Krause, Krause Refrigeration Service; George F. Lynch, Economy Refrigeration & Air Conditioning, Inc.; and Charles J. Purdie, Detroit Cooperative Refrigeration Service.

REFRIGERATION and Air Conditioning PARTS And SUPPLIES New Catalog FOR WESTERN STATES REFRIGERATION TRADE

Write For Your Copy Today!

REFRIGERATION SERVICE, INC.

3109 BEVERLY BLVD., LOS ANGELES 4, CALIF.

PHONE EXposition 3111

TELLING and SELLING

A GUIDE TO SMART ADVERTISING AND MERCHANDISING PRACTICES

This series of articles comprising ideas and principles for the small retail or manufacturing business is written by James D. Woolf, who was for more than 20 years a vice president and director of J. Walter Thompson Co., one of the largest advertising agencies. Out of his experience embracing all types of advertising and merchandising he brings his counsel to the small businessman who must plan his own advertising and promotional efforts.

By James D. Woolf

What's Your Objective?

Advertising has been under fire lately from several directions on the grounds that it is not sufficiently informative.

There is plenty of truth in these charges. Much current advertising is not *salesmanship.* It is merely *"remindership."* Seemingly the advertiser has no information to impart. Or he figures the readers do not care. So he jollies them with a cob or corny humor, or announces with prideful dignity that his great-grandfather founded the business in 1801, or maybe he treats them to an eyeful of leg art.

Trouble is, in such instances the advertiser is aiming at no clearly understood objective. The first question such an advertiser should ask himself is this: What is my goal? What is the precise result I seek? It is true that my general objective is more sales and profits, but what exactly is the role I expect my advertising to play?

MY MISGUIDED JEWELER FRIEND

The other day I lunched with a retail jeweler friend of mine. Chatting at the door of his store, on our return, we were interrupted by one of his salesgirls:

"The girl from the newspaper is here," she said, "and she wants to know what to put into tomorrow's ad."

"Tell her," replied my friend, "that she'll find some stock cuts of watches

in the second left-hand drawer of my desk. Ask her to pick out two or three cuts she likes, and to dish up three or four lines of snappy copy. I am too busy to bother with it now."

"Tom," I asked my friend, "how much will that ad cost you?"

He figured a moment and said, "Seventy-five dollars."

"And what are you so busy about right now?" I prodded him.

"Well," he said, "I've got a few dead-beat accounts on my books and I want to dictate a few collection letters. I've been putting it off for three weeks. After all, I figure my advertising is just sort of a goodwill builder, and I don't waste too much time on it."

My friend has never thought his problem through. Is *"remindship"* the only possible function of his advertising? Is it possible that interesting information about his merchandise—*credible* information—might bring business into his store? Jewelry is a mysterious commodity, and most people feel so helplessly uninformed about it.

TELL THEM AND SELL THEM

It cannot be urged too emphatically that there is selling power in information. Much that is interesting can be said about the smallest and most commonplace things. Materlinck wrote a wonderful book packed with fascinating facts about the humble little bee that buzzes so busily in your garden.

There are hundreds of everyday products, things we see and use all the time, about which most of us are appallingly uninformed. Take beer, as a good example. Not too long ago I conducted a consumer research study on fermented malt liquors. I uncovered an amazing area of ignorance. Not one man in ten, for example, could give my investigators even a foggy definition of such terms as *bock, lager, weiss, pilsner.* Women were a complete blank.

Almost without exception beer advertisers content themselves with catchy slogans and what my friend, the jeweler, calls "snappy copy." Pictorially, there seems to be a growing dependence on what is known in the advertising trade as "cheese cake."

Beer must be at least as interesting as the bee. Surely some brewery could do a job for himself with copy loaded with facts.

Flavor, sparkling brilliance, carbonation, and stability are four virtues that count heavily in beer. Malt and malt products, corn and corn products, barley and hops and cassava, and sugar and sorghum, are a few of the ingredients. *"Read on, my friend, and learn exactly how we blend these wholesome food elements into a really fine beer. Did you know that our bottles are soaked in scalding hot water and then airbrushed* inside? *Did you know that the spring water we use is chemically analyzed once a week? Let us tell you about our unique method which keeps our beer cloudfree—"*

And some of the same. Why wouldn't such copy, skillfully written, be read with interest and carry conviction? "Tell them and sell them"—that's salesense in advertising. Not only for beer—*but for ANY product or any retail store.*

'YES, BUT IS IT TRUE?'

Another charge that is being made more and more frequently is that much advertising isn't credible. The exaggeration to be found in current copy, both retail and national, is almost beyond belief.

"Can any toilet soap be so "exciting" that one steps from the

tub "dynamically alive"? Will a little girl "clap her hands and cheer" when mom brings her vitamin pills to her? Can any whiskey, even if it is "the product of rare genius," be a "glorious and matchless bourbon of surpassing excellence"? Can any cereal give one "hop-skip-and-jump" energy?

Greatest, best, unsurpassed, amazing, marvelous, stupendous—such worn out old blockbusters carry little conviction. There is power of belief and persuasion in understatement. Lincoln used only 269 simple words in his deathless Gettysburg Address—*and there is not a superlative among them!*

Especially striking for its lack of information, it seems to me, is current automobile advertising. Almost without exception it confines itself to generalities.

Irritating to many people is the fact that the price of the advertised car is rarely stated, even in approximate terms. Is it in the $1500 class, the $2500 class, or the $3500 class? Isn't that the first thing the prospective buyer wants to know. Wouldn't such prices be a *Service?*

The advertising of frosted foods, of home freezing units, and of locker service could to its advantage be much more informative.

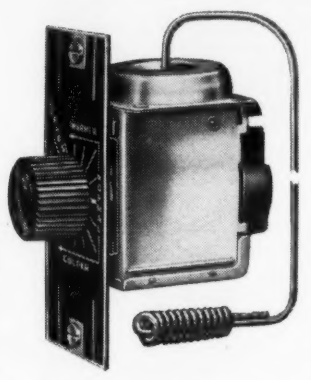
Few people really understand freezing as a method of food preservation (the control of bacteria and enzymes, for example), and the many practical applications that are now being made.

This deplorable lack of information is seen also in much of the advertising of such things as air conditioning, heating, refrigeration, and building materials. I am sure, a Gallup poll on these subjects would reveal a general I. Q. of about zero.

Fix on your objective—then "tell them and sell them"—and make it credible.

✓ CHECK WITH *Ranco* FIRST

	Specialists in Refrigeration	✓	Less Stock to Carry
	More Ranco Controls in Use		Greater Customer Satisfaction
	Dependability		More Profit For You



RANCO "All-Purpose" CONTROLS

Three out of every four service jobs you have can be quickly and satisfactorily handled with either of two Ranco Refrigeration Controls. That's specialized design, a Ranco feature that makes your job easier, insures customer satisfaction and keeps your stock supply at a minimum. Ranco Refrigeration Controls are available at leading wholesalers throughout the country.

See your Ranco wholesaler today, or write direct to Ranco Inc. for full information.

Ranco Inc. COLUMBUS 1, OHIO — World's Largest Manufacturers of REFRIGERATION CONTROLS

Only

THERMOBANK by KRAMER

Keeps Coils Frost-Free Automatically at Any Temperature without.. LABOR ATTENTION ELECTRIC HEATERS BRINE OR WATER SPRAYS

• Write for Bulletin 16

KRAMER TRENTON CO. Trenton, N.J.

Filtrine HIGH EFFICIENCY WATER FILTERS

TASTES AND ODORS VANISH

Filtrine Filters, in all applications, assure sparkling water — clean to the eye, stimulating to the palate, free of objectionable odors — the kind your customers expect from their coolers!

SELL A FILTRINE FILTER WITH EVERY COOLER ... A NATURAL PROFIT-MAKING TIE-IN!

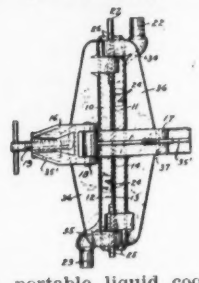
Several choice areas available for manufacturers' representatives.

FILTRINE MANUFACTURING CO.
53 LEXINGTON AVE., BROOKLYN 5, N.Y.
Manufacturers of Coolers & Filters for over 40 Years

PATENTS

Week of July 29 (Continued)

2,424,792. COOLING APPARATUS. Albert J. Blum, Maplewood, N. J., assignor to Mt. Vernon Farm Dairy, Pittstown, N. J., a partnership comprising John F. Montgomery and Albert J. Blum. Application Feb. 14, 1944, Serial No. 522,313. 3 Claims. (Cl. 257—245.)



1. In a portable liquid cooling unit, a pair of swingably connected cooling plates each having an extensive plane surface facing the corresponding surface of the other plate and each being provided with an internal cooling chamber adjoining its said surface, a hinge pin swingably connecting the corresponding sides of said plates, a relatively thin flat grid interposed between said plates and having an elongated circuitous conduit therein enclosed by said surfaces, a removable clamp having two U-shaped sections each spanning one of said plates and detachably interconnected with each other on oposite sides of the plates, one of said clamp sections having its medial portion provided with an abutment coacting with the central outer portion of one of said plates and the other having an adjustable clamping element coacting with its medial portion and with the central outer portion of the other plate, means for conducting liquid to said conduit through one of said plates and from the conduit through the other plate, and means for effecting circulation of cooling medium through said chambers.

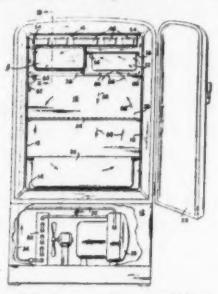
2,424,828. AIR MIXING AND DISTRIBUTING DUCT FOR AIR CONDITIONING SYSTEMS. Charles R. Keep, Norwood, Mass., assignor to B. F. Sturtevant Co., Boston, Mass. Application Aug. 19, 1944, Serial No. 550,141. 4 Claims. (Cl. 98—10.)

1. An air conditioning system comprising means forming a pair of adjacent, aligned air passages overhead the space to be served with conditioned air, means for supplying chilled air, under pressure into one of said passages, means for supplying air recirculated from said space, under pressure, into the other of said passages, one of said pasages having a wall aligned in a common plane with a wall of the other of said passages, said walls having spaced apertures formed therein, the apertures in said walls having axes intersecting outside said passages whereby the air from said passages is directed into converging streams outside same, said apertures having areas substantially less than the areas of the spaces between same whereby substantial air pressures can be built up in said passages.

Week of August 5

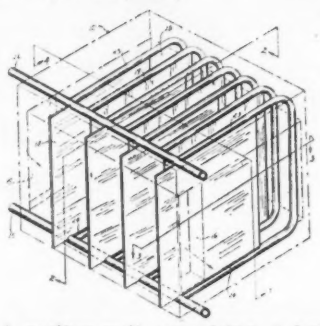
2,425,021. REFRIGERATION APPARATUS. William B. Anderson, Detroit, Mich., and Arthur W. Haley, Longmeadow, and Anthony H. Kelly, Springfield, Mass., assignors to Westinghouse Electric Corp., East Pittsburgh, Pa., a corporation of Pennsylvania. Application March 10, 1944, Serial No. 525,908. 7 Claims. (Cl. 62—103.)

1. In a refrigerator, a food compartment, an evaporator for cooling said compartment, comprising a flat horizontal shelf spaced from the top wall of said food compartment and extending to within a short distance of the walls of said food compartment and a wall structure including a bottom wall, a rear wall and side walls coacting with the underside of a portion of said shelf to form a freezing compartment, means for supporting said evaporator in position, a tray for receiving water resulting from defrosting of said evaporator, means for



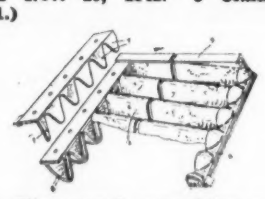
supporting said tray in position, a pan, means for supporting said pan beneath the remaining portion of said shelf and alongside said freezing compartment, and means for effecting flow of refrigerant through said evaporator, the outer peripheries of said freezing compartment, said pan and said tray extending to within a short distance from the walls of said compartment, and said tray being slightly spaced from the bottom of said evaporator and said pan being slightly spaced from the corresponding portion of said shelf.

2,425,119. COOLING UNIT. Charles R. Papay, Rocky River, Ohio, assignor to Designers for Industry, Inc., Cleveland, Ohio, a corporation of Ohio. Application March 24, 1944, Serial No. 527,927. 5 Claims. (Cl. 257—233.)



4. A cooling unit comprising, a housing having pairs of opposed walls containing thermal insulating material and defining a cooling chamber, certain of said walls having openings for the passage of air into and out of said chamber, refrigerant-conducting pipes embedded in said insulating material and including a pair of supply and return pipes and a plurality of substantially parallel branch pipes having their ends connected with said supply and return pipes at points spaced along the latter, said branch pipes extending in continuous relation along and being embedded in a pair of opposed side walls and a side wall connecting said opposed walls, and thermally conducting metal plates extending entirely across said chamber between said one pair of opposed walls and having one pair of their opposed edges joined directly to said branch pipes and other edge portions of said plates being spaced from other walls of said chamber so as to permit a flow of said air through the chamber in contact with said plates.

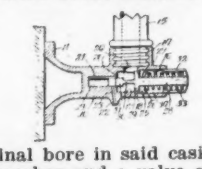
2,425,139. FILTER. Cecil Gordon Vokes, London, England, assignor to Vokes, Ltd., Guilford, Surrey, England. Application Dec. 21, 1943, Serial No. 515,171. In Great Britain Nov. 19, 1942. 3 Claims. (Cl. 183—71.)



1. A filter panel comprising a pleated filter element having a series of pleats with spaces between the folds thereof, sealing means at one end of said element and closing the spaces between the folds of the pleats on one side of the series of pleats but leaving open the spaces between the folds of the pleats on the opposite side of said series of pleats, and sealing means at the other end of the element and closing the spaces between the folds of the pleats that are open at the first mentioned end.

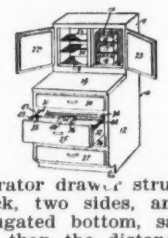
2,425,161. LIQUID DISPENSING VALVE. Fred W. Opitz, Chicago, Ill. Application June 14, 1945, Serial No. 599,358. 6 Claims. (Cl. 222—340.)

1. A liquid dispensing valve comprising a casing, an internally threaded collar formed integrally therewith for supporting an inverted bottle thereon, there being



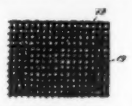
a longitudinal bore in said casing forming a liquid chamber and a valve chamber, an inlet port communciating said collar with said liquid chamber, a nipple formed integrally with said casing having an outlet port communicating with the valve chamber, there being a passageway in said casing forming a constant communication between said chambers, and a plunger mounted in said bore for controlling said inlet port and said outlet port.

2,425,232. FOOD SUPPORTING RACK FOR REFRIGERATOR DRAWERS. Guyon L. C. Earle, Forest Hills, N. Y., assignor, by direct and mesne assignments, to Hugh S. Wertz, as trustee. Original application March 6, 1944, Serial No. 525,146. Divided and this application Sept. 25, 1944, Serial No. 555,706. 4 Claims. (Cl. 62—89.)



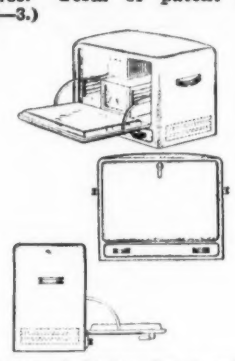
1. A refrigerator drawer structure comprising a back, two sides, an insulated front, a corrugated bottom, said bottom being shorter than the distance between said front and back so that air may flow in and out of said drawer, a rack supported from said sides, and at least one food container supported from said rack, said rack being over the portion of the drawer, which has no bottom.

2,425,235. FILTER. John Ferrante, Johnstown, N. Y., assignor to Kenlea Mfg. Co., Johnstown, N. Y., a corporation of New York. Application July 16, 1943, Serial No. 495,059. 12 Claims. (Cl. 183—51.)



DESIGNS

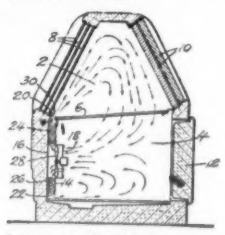
147,252. DESIGN FOR A REFRIGERATOR. Florence P. Rothert, Inglewood, Calif. Application Dec. 15, 1945, Serial No. 124,785. Term of patent 14 years. (Cl. D67—3.)



The ornamental design for a refrigerator, substantially as shown and described.

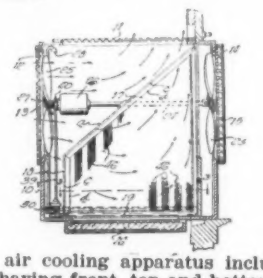
Week of August 12

2,425,295. REFRIGERATED DISPLAY CASE. Harry A. Morris, Trenton, N. J., assignor to C. V. Hill & Co., Inc., Trenton, N. J., a corporation of New Jersey. Application Oct. 5, 1944, Serial No. 557,341. 12 Claims. (Cl. 62—89.5.)



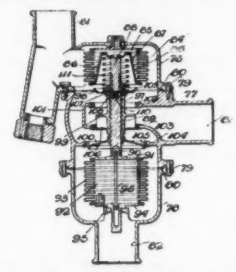
1. In a refrigerated display case having an upper display chamber and a lower storage chamber, means for cooling and circulating air through both of said chambers, comprising a refrigerating coil associated with the display chamber, another refrigerating coil associated with the storage chamber, and means for forcing air over each of said coils and thence into the chamber with which that coil is associated.

2,425,417. DRY AIR COOLER. Jack J. Booth, Dallas, Tex. Application June 17, 1946, Serial No. 677,153. 6 Claims. (Cl. 62—139.)



1. An air cooling apparatus including a cabinet having front, top and bottom openings and a controlled rear opening, a heat exchanger in said cabinet comprising an assembly of parallel chambers, every other chamber in said assembly being open, along its top and front to define an intermediate chamber open at its bottom and rear, said chambers forming respectively water and air chambers, the water chambers being numerically one less than the air chambers; means for cascading water into said water chambers to continuously moisten the walls thereof, means including the walls of said water chambers for constraining air to pass through the front opening of said cabinet across the walls of said chambers and outwardly through the top of said cabinet, means including the walls of said air chambers for causing air to pass through the bottom of said cabinet, through said air chambers and outwardly through the rear of said cabinet, and means for directing the water collected in the water chambers to the cascading means.

2,425,439. TEMPERATURE REGULATOR. Louis M. Puster, Knoxville, Tenn., assignor to The Fulton Sylphon Co., Knoxville, Tenn., a corporation of Delaware. Application Oct. 21, 1942, Serial No. 462,845. 11 Claims. (Cl. 236—34.)



1. A temperature regulator of the type employing thermostatically controlled valve mechanism for predetermining the flow of medium through either or both of a main line and a by-pass and in combination with a thermostat subjected to the temperature of said medium and including an expansible and collapsible chamber having a movable end wall responsive to variations in the pressure acting exteriorly on said thermostat, means providing main and by-pass ports, a pressure responsive member operatively connected to said thermostat in opposing relation thereto, said thermostat and said pressure responsive member being respectively disposed on opposite sides with respect to one of said ports so that when said port is closed one of said thermostat and said pressure responsive member is shielded from the pressure acting on the other, said pressure responsive chamber including a partially evacuated, gas-charged, expansible and collapsible chamber having a movable end wall provided with an effective area which is equal to the effective area of the movable end wall of said thermostat, and main and by-pass valve mechanism operatively connected to the movable end walls of said thermostat and pressure responsive member and including a valve member cooperating with said port separating said thermostat and said pressure responsive member and having an effective area equal to that of the movable end walls of said thermostat and said pressure responsive member.

(To Be Continued)

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10/13/47

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POSITIONS WANTED

COMMERCIAL AND domestic service man. Seven years experience on low pressure systems can install and service multiple and sub zero systems. Now employed, but will go anywhere in the United States for a full time year around job. RAY G. LEONARD, 2525 Vargrave Street, Winston Salem, N. C.

SALES MANAGER or sales supervisor with twenty-five years service in domestic and commercial refrigeration sales with the two largest refrigeration manufacturers. Familiar with dealer and jobber set up. Prefer locating in Baltimore, Maryland. Willing to travel Middle Atlantic states. BOX 2525 Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

REFRIGERATION PROJECT engineer must have experience cabinet design. Contact H. F. Sylvester, Refrigeration Division, NOMA ELECTRIC CORPORATION, Barber, New Jersey.

FACTORY PRODUCTION man assistant to Superintendent with experience in production of commercial refrigerators, coolers, cases, etc., with knowledge of wood and metal construction with firm over 60 years in business. Give full qualifications, references and salary. C. L. PERCIVAL REFRIGERATION COMPANY, Boone, Iowa.

REFRIGERATION & SALES engineer.—College graduate must have complete knowledge and experience in commercial and industrial air conditioning and refrigeration—ammonia and "Freon." Experience must include actual installation, estimate and sales. Written application giving full details as to experience, age, etc. Salary and commission. BOX 2513 Air Conditioning & Refrigeration News.

SALES ENGINEER: Young man desired for estimating and selling ammonia and "Freon" machinery installation, should have technical training and be thoroughly competent, Virginia territory. Write giving full qualifications and experience to BOX 2520 Air Conditioning & Refrigeration News.

ASSISTANT MANAGER for leading Midwest refrigeration supply wholesaler. Requires previous experience as counter or salesman of refrigeration parts. BOX 2526 Air Conditioning & Refrigeration News.

OPENING FOR experienced refrigeration counter salesman to handle new branch store for well established refrigeration parts wholesaler located in Midwest area. Write stating experiences. BOX 2527 Air Conditioning & Refrigeration News.

LABORATORY TEST & project engineers. Openings for several refrigeration laboratory test & project engineers interested in a permanent position with a well established refrigerator manufacturer. Mechanical or electrical engineering graduates preferred. Experience not necessary. Give education, experience, references. Address replies to BOX 2528 Air Conditioning & Refrigeration News.

WANTED—AIR conditioning and refrigeration sales engineer for Chicago and surrounding territory. Applicant must have experience and be qualified to estimate jobs. Position permanent with old Chicago concern dealing in Ammonia and "Freon" equipment. Reply giving full particulars regarding yourself, also experience and salary expected. BOX 2529 Air Conditioning & Refrigeration News.

STRONG INDIANAPOLIS jobber needs junior salesman to assist in calling on wholesale trade—knowledge of parts helpful, but not essential. Write giving past experience, etc. BOX 2530 Air Conditioning & Refrigeration News.

EQUIPMENT WANTED

COUNTER FREEZERS wanted for resale: Used freezers, 1½, 2½ and 5 gallon sizes, in good condition. Prefer Taylor but will accept Basitan Blessing also. No others considered. Write make, size, age, condition and price to BOX 2512 Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

SELLING OUT way below our wholesale costs the latest type new upright modernistic stainless steel frozen food cabinets, sizes 16 and 20 cu. ft. Also beverage coolers, dry-type. For a good buy, write ACME REFRIGERATION CO., 634 Dean Street, Brooklyn, New York.

MOTORS AND condensing units—available at once—⅛-¼-⅓-½ Universal condensing units with or without motors. Special—six hole ice-cream cabinets with ¼ hp. Copeland units less motors $225. Also beverage coolers, beer equipment, stainless steel reach-in freezers. ALBROD CORP., 319 West 48th St., New York City 19, CI 6-9100.

LIQUIDATING $70,000 stock of 22-32-40-60-80 cu. ft. reachins, remote and self-contain models; all sizes of condensing units, electric water coolers, freezer plates, electric meat slicers, meat choppers. At less than factory prices. A real opportunity. Write AMERICAN COMMERCIAL EQUIPMENT CO., 4150 Holly Knoll, Los Angeles 27, California. Normandy 0450.

SACRIFICING NEW equipment. 12 Betz & Bush cooling coils #35 to 85. 12 Lipman condensing units with motors, ½, 1, 5 HP. Air cooled and water cooled. 25—12" x 144" Stangard plates. 10—22" x 72" freezer plates. Wire or write, BARTON ELECTRIC & REFRIGERATION CO., Dodge City, Kansas.

SELLING OUT: used (as is) and rebuilt Frigidaire and Kelvinator condensing units with new s. ph. capacitor motors. Write for list. EDISON COOLING CORP., 310 E. 149th Street, Bronx 51, N. Y.

EXCESS INVENTORY of brand new compressor and condensing units priced far below cost. All in original crates. "Freon" type 208/3/60 complete. Also few motors, starters, self-contained air units and freezer doors. E. M. FAIRBANKS, 145-03 Seventh Avenue, Whitestone, L. I., N. Y.

NEW REFRIGERATOR motors (capacitor type). General Electric—¼ HP $21; ½ HP $29.50; ½ HP $45; and ¾ HP $63. Jack and Heintz—¼ HP $21; and ⅓ HP $29.50. Write for quantity prices. GENERAL REFRIGERATOR COMPANY. 856 N. Broad Street, Philadelphia, Pa. Phone: STevenson 4-1144.

FOR IMMEDIATE disposal our inventory new Universal compressors complete with motors, 3, 5, 10 HP water cooled—original crates. Water defrost coils Drayer-Hanson 1900 WD—2600 WD also Recold 1344LT. Wholesale cost. LOCKER ENGINEERING COMPANY, 521 No. La Cienega Blvd., Los Angeles 36, California.

10,000 FEET ALCOA 3S-O aluminum drawn tubing .028" wall x ½" O.D. in 40' and 50' coils @ .03 per foot. FOB our plant. MIDWEST INDUSTRIES, INC., 835 Osage, Kansas City, Kansas.

AVAILABLE IMMEDIATE delivery FOB New York, 7½ ton Marlo evaporative condenser—$675, following Larkin evaporative condensers; 7½ ton—$630, 10 ton—$705, 15 ton—$900, 20 ton—$1000, Temprite self-contained pressure type water coolers $147 net each. Terms 25% with orders, balance sight draft. REESE & LONG REFRIGERATION PRODUCTS, INC., 408 East 25th Street, New York, N. Y.

SEALED CROSLEY TERMINALS. Installed from the outside in a few minutes without opening the compressor. Corrects leaky terminals on all Crosley "F-12" units. Set of three $5.25 (Part No. 1020). Installation tool 20¢. Immediate delivery. Money-back guarantee. SEALED UNIT PARTS CO., 3097 Third Ave., New York 56, N. Y.

IMMEDIATE DELIVERY—¼ HP refrigerator motors $25. ⅓ HP refrigerator motors $30. ½ HP refrigerator motors $40. Full line ice cream cabinets 2-12 holes, complete with condensing units: ¼ HP to ½ HP condensing units with motors; GEMCO 5-ton air conditioning unit $1,000. Reach-ins, beverage coolers, display cases. Reducing inventory. BOX 2524 Air Conditioning & Refrigeration News.

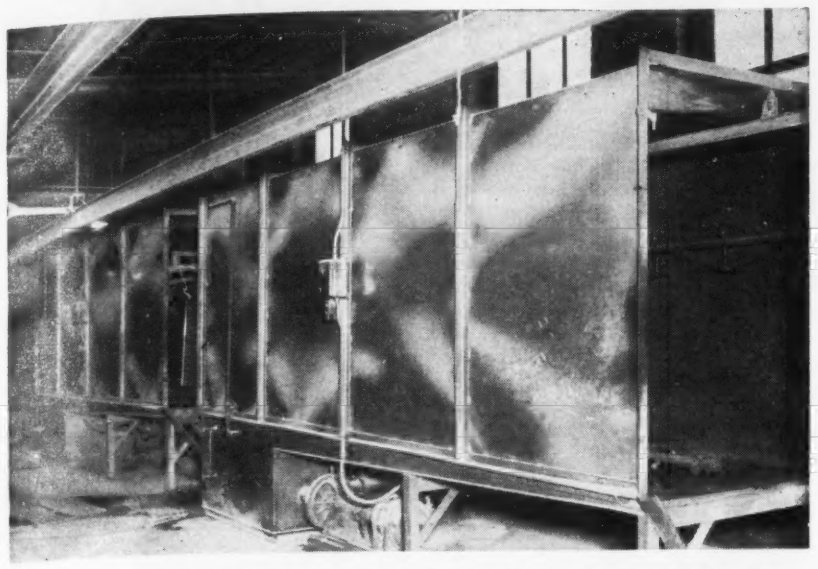
FRANCHISES WANTED

DEALER IN refrigeration appliances, currently operating well equipped workshop and maintaining trained staff desires exclusive Netherlands agency for established American refrigeration manufacturer. Apply to: Fa. P.H.v.d.Ven, Kleverlaan 7, Haarlem.

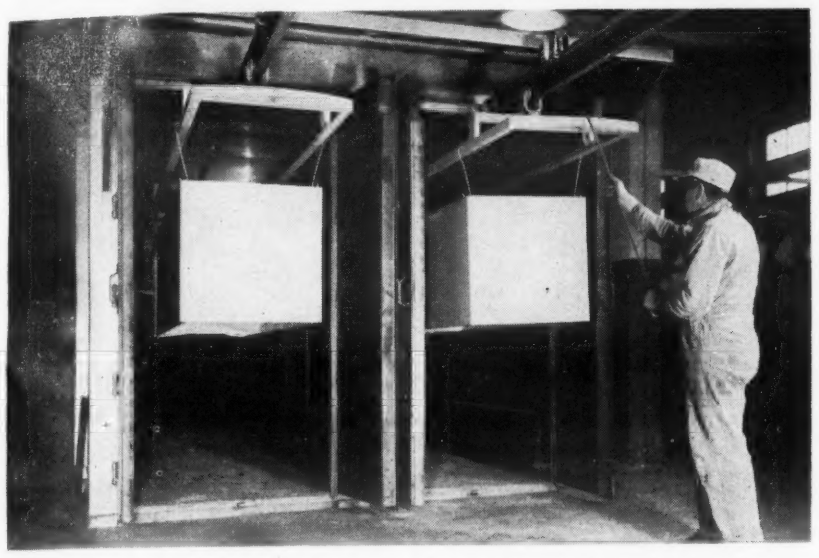
BUSINESS OPPORTUNITIES

EASTERN MANUFACTURER specializing in air conditioners, room coolers, freezers, ventilators and fabrication of all types of sheet metal work has open time on most plant facilities. Presses up to 100 tons. Inquiries with full details are invited. BOX 2514 Air Conditioning & Refrigeration News.

Rust Preventive Applied Automatically



At the Schaefer plant in Minneapolis frozen food cabinets are automatically given a phosphate coating prior to painting to inhibit rust and bond the finish. The coating oven is on the right, a clean water rinsing section at the left.



Here an operator in the Schaefer plant removes finished cabinets from the bake oven, the final step in the process that features a prime layer of non-metallic phosphate.

* * *

Bonds Paint to Metal, Too

Phosphate Spray Bath Protects Schaefer Frozen Food Cabinets from Rusting

MINNEAPOLIS — To protect its steel frozen foods cabinets against rusting beneath their painted surfaces, low-temperature box manufacturer, Schaefer, Inc. subjects the cabinets to a phosphate bath before painting.

The process of applying the "Granodine"* solution, made exclusively by the American Chemical Paint Co., is carried out automatically in a covered metal booth.

The cabinet bodies are placed on a manually operated conveyor line and moved into the booth. The Granodizing chemicals are sprayed onto the bodies from nozzles arranged to secure maximum effectiveness of the phosphating action.

The phosphate spray is allowed to act on the steel for approximately three minutes at room temperature. Then the spray is discontinued and the cabinets—one, two, or three, depending on their size—are moved to another booth for a clear water rinse.

The clear water rinse removes any excess Granodine and any products of the chemical coating action. This rinse is applied for about one minute at room temperature.

The steel cabinet frames are next given an acidulated rinse which neutralizes any harmful traces of rust and establishes an "ideal pH range" for painting. This rinse may consist of either diluted chromic or chromic phosphoric acids at room temperature.

The phosphate coating produced on the Granodized steel is a substantial layer of minute, uniform crystals of an insoluble, non-metallic, non-conductive character.

This bonding layer, although eventually hidden by the priming coat and the Dulux finish, is nevertheless claimed to form a constant barrier against the inroads of rust. It is also claimed to be a successful means of anchoring the paint finish to the metal.

In case of accidental chipping or scratching of the finish, it is said, rust cannot spread beyond the area of exposure.

Uniformity of phosphate coatings and pH is made consistent by periodic analyses conducted on both the Granodine and the acidulated baths. These analyses usually consist of single titrations which permit a close check on the balance of the chemical solutions.

After the steel cabinet shells leave the final acidulated rinse, they are moved into the steam-heated drying oven which is maintained at a temperature around 200° F.

A drying period of about five minutes removes all liquid deposits remaining from the acidulated bath.

Making a U-turn in the conveyor line, the phosphatized steel shell is moved into the painting booth for their first coat of paint.

Later, after a drying period in the bake oven at temperatures ranging from 250° F. to 300° F., they are given their final Dulux "lifetime" finish.

The cabinets are then ready for the assembly line to be fitted with all the mechanisms that go to make up a frozen foods cabinet.

*"Granodine." Trade Mark Reg. U. S. Pat. Off. by the American Chemical Paint Co. for Metal Coating Chemicals.

NERA Plans National Retailer Conference

WASHINGTON, D. C.—The National Electrical Retailers Association will conduct a national conference of retailers of appliances and radios at the Sheraton hotel, Chicago, on Jan. 19, 20, and 21, 1948, according to C. C. Simpson, managing director.

Subjects to be discussed at the conference include manufacturer-distributor relations, service, sales promotion, business efficiency, trade-ins, rural electrification, installations, and expansion of NERA and NERA services.

In his announcement letter, Mr. Simpson stated that NERA has gone through one year of foundation work, learning where and how the association can best serve the industry. "We are now at the point," he said, "where we can make definite decisions what the policy of the association will be on these important subjects and exactly what procedures we will follow in protecting and advancing the interests of appliances-radio retailers during the coming year."

Regional chairmen on each subject have been appointed in every section of the country. These chairmen will form committees, Mr. Simpson said, to provide NERA with appliance and radio retailers' opinions on assigned subjects, and advice as to how NERA can accomplish the desired results. Regional chairmen in turn will report to a general chairman for each subject, and the report of each general chairman will be made in person at the Chicago conference.

The program of the conference allows a day and a half for discussion of the seven principal subjects, a half day for strictly association business, and a half day for a joint conference of dealers and manufacturers to discuss ways and means of advancing the electrical industry. At three noon luncheons the speakers will be a prominent manufacturer, a well known distributor, and a nationally recognized speaker on the subject of hiring, training, and compensating salesmen.

International Harvester To Hold Lakefront Exhibit

CHICAGO — Following a plaque dedication ceremony at the site of the first McCormick reaper factory in Chicago commemorating International Harvester Co.'s "100 Years in Chicago," the company announced its forthcoming lakefront exhibit which will be held Oct. 18 to Nov. 2.

Erection of four huge tents, up to 350 feet long, is under way in the southeast parking area adjacent to Soldier Field. These tents will house the company's various equipment displays and exhibits, which will vividly tell the history of agriculture.

A gigantic entertainment tent, seating approximately 5,000 persons, will be erected at the end of the outdoor equipment display area where visitors will be able to view a first-class entertainment show each day. Refrigeration demonstrations in home freezing also will be given in this tent.

George Foerstner of Amana Heads New Officers, Directors of Frozen Food Locker Institute

New officers and directors of the Frozen Food Locker Institute were elected at the recent annual meeting in Kansas City. In the front row (l. to r.) are Roger Sprague, L. O. Warner, retiring president; George C. Foerstner, president-elect; and R. R. Farquhar, secretary. Standing (l. to r.) R. W. Hayes, D. R. Card, James B. Smith, John H. Bonitz, Bryce Vollmar, and J. O. Smith.

Store Sets Appliances In Bays for Display

DENVER—Davis & Shaw Furniture Co., has opened its new appliance department which is located in the store's downstairs floor and occupies a floor space of 5,000 sq. ft.

In building the new department, the store management gave a great deal of thought in proper use of space so that the section would look uncrowded and yet have a good representation of stock.

To this end, bays were built which line both sides of the department. There is space in each bay adequate for the presentation of four refrigerators and these are arranged and segregated so that only one manufacturer's product is shown in each bay. Hot water heaters and kitchen cabinets and sinks are also displayed in this manner.

Through the center aisle in neat arrangement is the display of gas and electric ranges, 16 models in all. All of the appliances are hooked up so that the customer may see the refrigeration or water heater in operation.

In an adjoining room is the laundry or utilities equipment. Here too all the appliances are "alive." The room which is 12 by 30 ft. has a good representation of washers, dryers, ironers, dishwashers, and garbage disposals. A hot water heater is used in connection with consumer demonstrations.

Another room off the main appliance department is relegated to small appliances. These are attractively displayed in partitioned wall shelves with low cupboards for additional stock.

All of the rooms which make up the appliance departments are lighted with fluorescent lighting and have light tone walls which add to their attractiveness.

Stucky Bros. Will Open 3rd Ft. Wayne Outlet

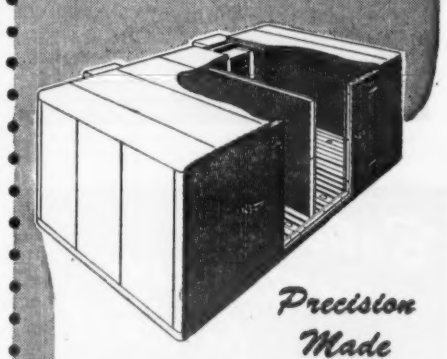
FORT WAYNE, Ind. — Joseph Stucky, head of the Stucky Brothers local chain of home appliance retail outlets, has announced the opening of its third store in Fort Wayne about Nov. 1.

New Model "RECO-FAB"

ALUMINUM EXTERIOR AND INTERIOR FREEZE COOLERS

FOR ZERO OR MEDIUM TEMPERATURES

• LIGHT IN WEIGHT • SIMPLE TO ERECT, MOVE OR ENLARGE



Precision Made SECTIONAL CONSTRUCTION

Partial List of Sizes Shown Below—Write for Our New Catalogue & Price on Size Desired. Indicate:

★ Storage Temperature Desired
★ Type of Product to Be Stored
★ Quantity of Product to Be Stored
★ Temperature of Product When Placed In Cooler

So That We May Recommend Proper Packaged Refrigeration System for the Job.

Model	Size	Cu. Cap.
80-1	4'11" L x 8'6" W x 7'6" H	192
80-2	8'6" L x 8'6" W x 7'6" H	366
80-3	12'1" L x 8'6" W x 7'6" H	550
80-4	15'8" L x 8'6" W x 7'6" H	715
120-3	12'1" L x 12'1" W x 7'6" H	812
120-4	15'8" L x 12'1" W x 7'6" H	1075
120-5	19'3" L x 12'1" W x 7'6" H	1339
120-6	22'10" L x 12'1" W x 7'8" H	1600
120-7	26'5" L x 12'1" W x 7'6" H	1862

Larger Sizes to 4000 CU. FT. CAPACITY

• Available with "RECO-PAK" SELF-CONTAINED REFRIGERATION SYSTEM EQUIPPED WITH BLOWER COIL AND RECOMATIC DEFROST OR WITH SHARP FREEZING EQUIPMENT.

Reco Fabs for Freezing & Hardening also Available.

RECO

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REFRIGERATION ENGINEERING CORP.
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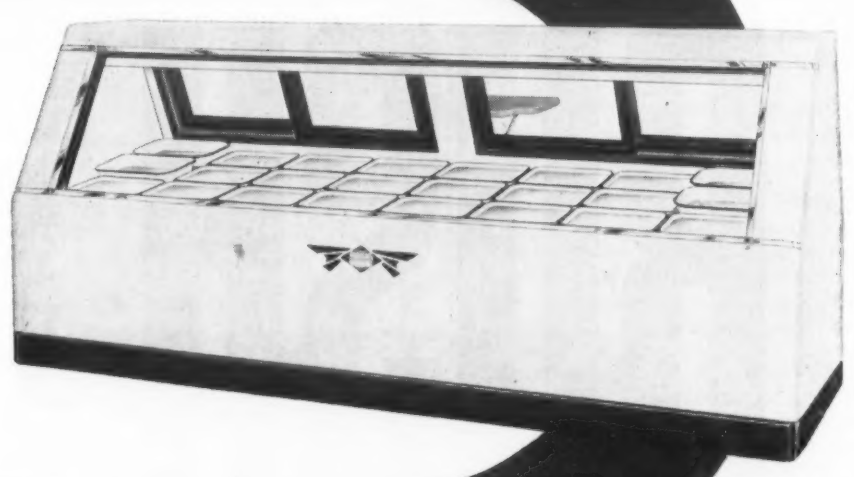
EYE CATCHER



Outstanding in the display case field, the SHERER Model 500 offers food merchants—

WORKABILITY—easy to work out of

VISIBILITY—customer sees all the display

CAPACITY—3 platters deep on one shelf

BEAUTY—gracefully rounded contours

It has everything expected in a good meat case.

SHERER REFRIGERATED MERCHANDISERS

SHERER-GILLETT CO., MARSHALL, MICHIGAN

Appliance Prices--

(Concluded from Page 1, Column 5)

sold to our customers. The result of all this has been a 6.8% increase in the ratio of total cost of doing business to sales.

"The final result from reduced margins and increased cost was a reduction in the rate of profit in terms of sales of about 20%. This means that we would have to do 20% greater business dollar-wise in order to earn the same dollar net profit."

Sears' spring prices were 90% higher than those for the fall of 1936 and fall prices are 84% higher, but 3% below spring, Mr. Houser reported. He said the spring opening prices compared as follows with those for the fall of 1939:

Electrical appliances, up 82%; household wares, up 61%; furniture, up 109%; cotton goods, up 192%; leather goods, up 108%; fabricated cotton goods, up 106%; rayon, up 87%; woolen goods, up 77%; paints, up 64%; and floor coverings, up 57%.

In support of his contention that per capita output has declined, Mr. Houser presented his own analysis of a typical group of factories (including several which manufacture electrical appliances) in terms of production per man hour.

"Three out of seven showed a production per man hour either even with or less than in 1941," he told the committee. "Two showed increases of 5% or less and three showed increases around 15%.

"However, millions of dollars have been invested in the last few years in these plants for improved equipment designed to permit an employe to produce greater quantities without greater physical effort.

"In all cases it took an investment of at least double per employe, in order to secure an improvement in production per man hour. In one case, new equipment per employe equal to three times that of prewar was installed."

While discussing this point, Mr. Houser told the committee that one hard goods manufacturer spent $750,000 in additional mechanization and improved layouts in order to increase output per employe "and thus avoid passing on to the distributor and to the consumer the full impact of increase in hourly rate of pay.

"As a matter of fact," he related, "in this case investment in production equipment per employe has about doubled during this period."

Mr. Houser said he did not need to emphasize "what the cost of government does to prices as reflected in taxes at every point throughout the whole chain of manufacturing and distributing."

"The general inflationary effect of billions of war-time created dollars, which are still with us, is another important cause of inflation," he declared.

"Corrective measures lie partly in the hands of management and of labor, but probably the most potent influences lie outside the realm of either, inasmuch as government alone can deal with such matters as taxes, money supply, and foreign relief."

The agricultural parity formula should be modified, he proposed, because it was developed at a time when the farmer's standard of living was below that of the city worker.

B. L. Bobroff, sales manager of Teleoptic Co., Racine, Wis.; John W. Anderson, president of the American Fair Trade Council; and Delmar L. Kroehler, president of Kroehler Mfg. Co., Naperville, were among other businessmen who testified here.

Mr. Bobroff warned that a price cutting war may develop if federal fair trade practices are not strengthened. He said such a war would be disastrous to small business and would reduce values to consumers.

Mr. Anderson said that once the government stops creating scarcities, prices would find normal levels.

Credit Terms--

(Concluded from Page 1, Column 2)

temptation at that point to increase the charges made to the borrowers," he asserted.

"When this occurs, the banks are well on the way to condoning the 'pack' with its accompanying ultimate adverse public reaction."

Possible effects of the expected easing of credit terms when Regulation W dies on Nov. 1 were outlined by E. I. H. Bennett, vice president of Peoples First National Bank & Trust Co., Pittsburgh, who declared, "We do not need today the longest maturities possible; we merely need some reasonable relief from the unreasonable, uneconomic terms imposed by the about-to-be-buried Regulation W."

Production of Bendix Washers Reaches All-Time High In Sept.

SOUTH BEND, Ind.—Production of Bendix automatic washers reached 60,000 units in September, an all-time high, reports Harry L. Spencer, vice president of Bendix in charge of manufacturing.

The company also produced a record number of automatic clothes dryers—more than 6,000—and approximately 5,000 automatic ironers.

During the first nine months, Bendix Home Appliances, Inc. produced approximately 450,000 automatic washers, 32,000 ironers, and 21,000 dryers. In the same period last year the company made approximately 190,000 washers. It had not begun the manufacture of dryers and ironers.

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OASIS ELECTRIC WATER COOLERS

You get the best in thirst-quenching convenience with OASIS. Built by EBCO, they're backed by 20 years of water cooler leadership.

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401 W. Town St.
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Both in the same bracket!

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PATENTED
The PIONEER FLUID DEHYDRANT

...ACTIVE, ALWAYS CIRCULATING. DESTROYS MOISTURE CHEMICALLY, ECONOMICALLY, QUICKLY AND EFFECTIVELY.

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REFRIGERANT LEAK DETECTOR

...ITS STABLE AND VIVID RED COLOR REVEALS LEAKS.... INSTANTLY!

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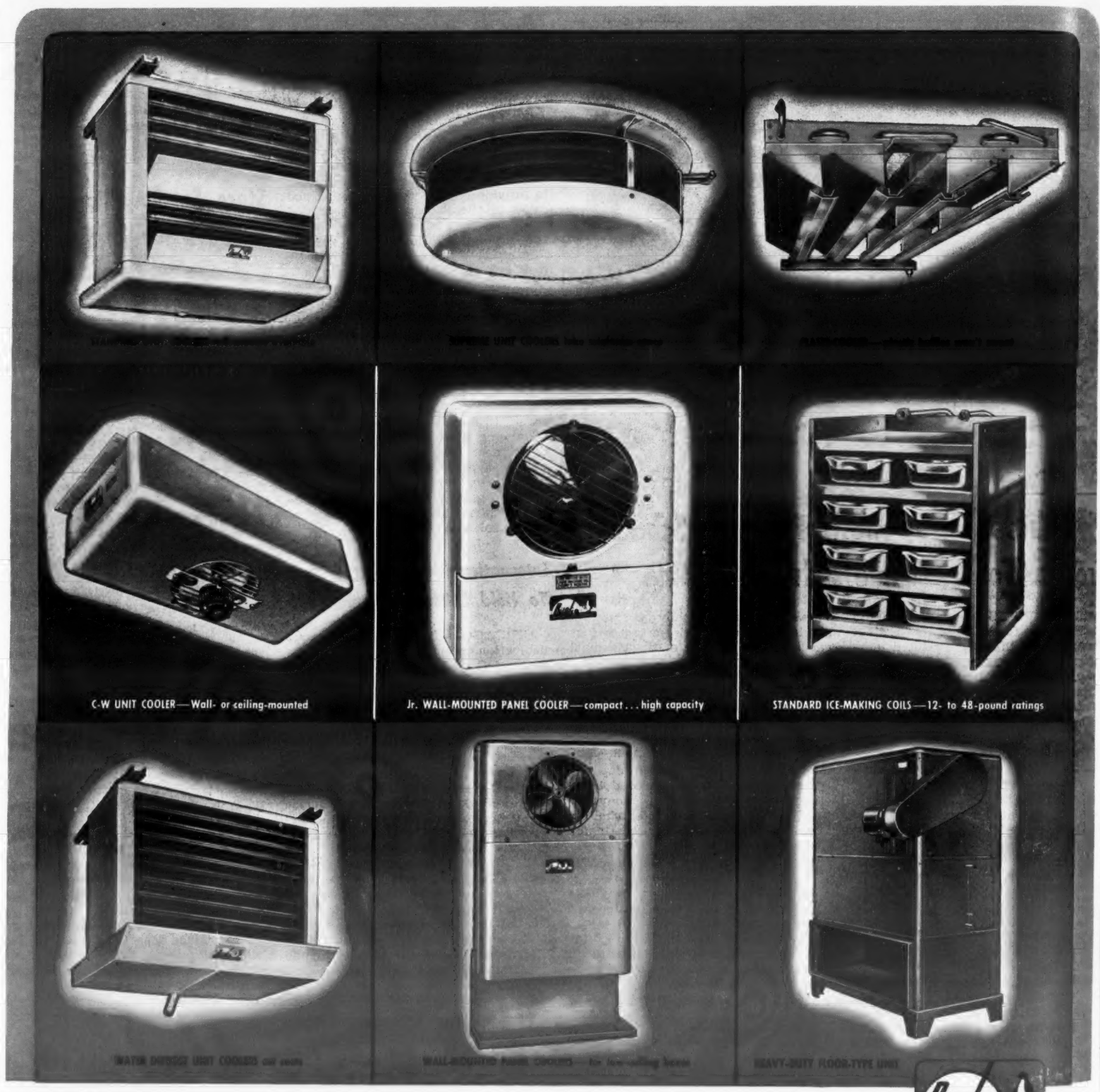
C-W UNIT COOLER—Wall- or ceiling-mounted
Jr. WALL-MOUNTED PANEL COOLER—compact... high capacity
STANDARD ICE-MAKING COILS—12- to 48-pound ratings
Bush
HEAT TRANSFER PRODUCTS

BUSH

"BUSH" MEANS *MORE* BUSINESS . . . *MORE* PROFIT. The Bush name on equipment you sell is certain to result in more business from each customer . . . . and from friends of those customers.

That's because owners of Bush equipment soon discover that these products require less servicing . . . that they are high on performance, low on operating cost.

To you, in addition to bringing new business, the Bush trademark also means that costly service calls won't eat up your profits. And that's worth thinking about when specifying equipment that you'll have to live with.

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